

United States Listings

radio amateur

callbook

magazine

In this issue . . .

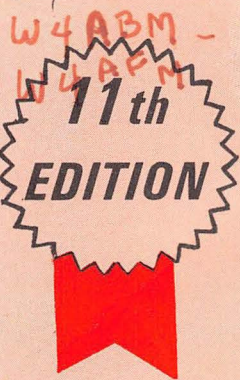
- 286,684 U.S. Licensed radio amateurs!
16,524 new licenses included, issued
by FCC, since the Winter 1971-72 edition.
- 102,328 changes in listings!
- Slow Scan Television Directory —NEW!
- Zip Codes and License Class on
all listings!
- Stop Press — late QTH's!
- Then & Now — Call letter changes!
- Silent Keys deleted from this issue!
- QSL Managers Around the World!
- Radio Amateur Prefixes of the world, with map!
- A.R.R.L. Countries List!
- Great Circle Bearings!
- International Postal Information!
- Standard Time Charts!
- Census of Amateur Radio Licenses of the World!
- Census of Amateur Radio Licenses of the U.S.!
- World Wide QSL Bureaus!
- Plus many other features!

*The only publication listing licensed radio
amateurs throughout the world, since 1920.*

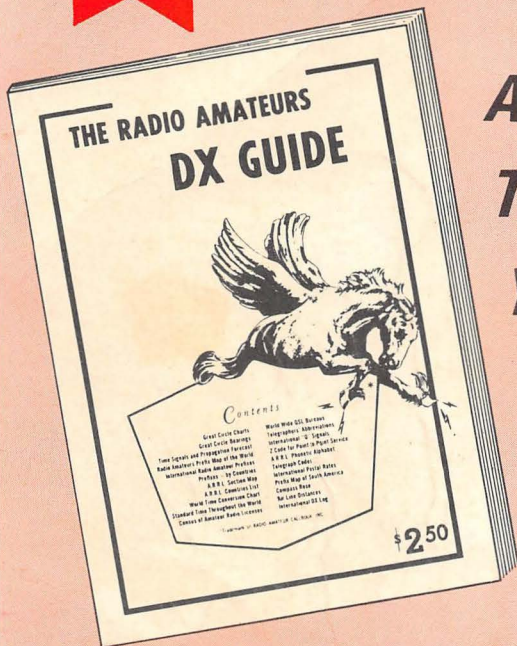
51st ANNIVERSARY EDITION
FOR 1973

\$895
PER COPY

WINTER 1972-73



RADIO AMATEURS DX GUIDE



**ADD
TO
YOUR
DXing Pleasure!**

\$2.50

plus 50 ¢ for mailing

64 pages, size 8 3/4" x 12"

The DX Guide is a handy reference manual containing valuable information for every radio amateur — especially the DXers.

JUST LOOK AT THIS TABLE OF CONTENTS

INTERNATIONAL DX LOG — prefixes of all countries that qualify for DXCC. Ample space provided to make a permanent record of all DX stations worked, showing date, call letters, frequency and whether a QSL card has been sent or received. Can be used either for a DX contest or the annual ARRL field day.

WORLD MAP SHOWING RADIO AMATEUR PREFIXES — an outstanding map, 15" x 10".

GREAT CIRCLE MAPS — centered on New York City, San Francisco, Seattle, Wash., Washington, D.C. and the center of the United States.

PREFIX MAP OF SOUTH AMERICA — showing the number or letter designating all sections and countries.

GREAT CIRCLE BEARING TABLES — each printed on a separate page for easy removal of the one nearest your location. 326 bearings are shown to the nearest degree and the distance in statute miles on each table for Anchorage, Alaska; Atlanta, Georgia; Boston, Mass.; Buffalo, N.Y.; Chicago, Ill.; Columbus, Ohio; Dallas, Texas; Denver, Colo.; Detroit, Mich.; Honolulu, Hawaii; Houston, Texas; Jacksonville, Florida; Kansas City, Mo.; Knoxville, Tenn.; Los Angeles, Calif.; Louisville, Ky.; Miami, Fla.; Minneapolis, Minn.; New Orleans, La.; New York City, N.Y.; Norfolk, Va.; San Francisco, Calif.; Seattle, Wash.; Washington, D.C.; and the geographical center of the United States.

GREAT CIRCLE BEARINGS IN THE UNITED STATES — between 39 large cities in the U.S.A. — a valuable aid for VHF work as well as handling traffic through QRM.

GREAT CIRCLE BEARINGS TO WORLD WIDE METROPOLITAN AREAS — exact bearings to the nearest degree from 39 cities in the U.S.A. to 39 metropolitan areas throughout the world.

TIME CONVERSION TABLE — determine the time in any time zone in the world. Also know whether it is today or tomorrow at the place heard or worked.

TIME THROUGHOUT THE WORLD — time zones of most countries. Explains the International Time Zone System.

AIR LINE DISTANCES IN THE UNITED STATES — arranged in alphabetical order between 39 cities of the United States.

POSTAL INFORMATION — rates for QSL cards, first class and airmail letters to foreign countries. Also the number of international reply coupons for the proper postage for a return airmail letter is shown for most countries.

ARRL COUNTRIES LIST — official list of ARRL DX contest and DXCC. Courtesy ARRL.

COMPASS ROSE — for that rotary beam indicator, graduated for 360 degrees. With white background and no print on the reverse side of the sheet.

PLUS THESE INTERESTING FEATURES — INTERNATIONAL "Q" SIGNALS; WORLD WIDE QSL BUREAUS; "Z" CODE FOR POINT-TO-POINT SERVICE; ARRL PHONETIC ALPHABET; TELEGRAPHERS ABBREVIATIONS; DX OPERATING CODE; TELEGRAPH CODES.

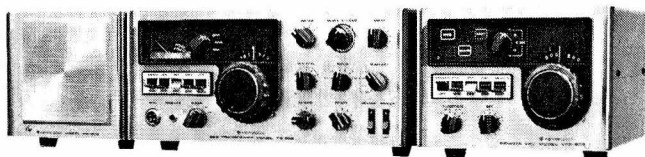
NATIONAL BUREAU OF STANDARDS PROPAGATION FORECAST SERVICES AND TIME SIGNALS; CENSUS OF RADIO AMATEURS THROUGHOUT THE WORLD; RADIO AMATEUR PREFIXES ALPHABETICALLY BY PREFIX AND BY COUNTRY.

SEE YOUR FAVORITE ELECTRONICS DEALER FOR THE LATEST ISSUE OR
ORDER DIRECT FROM THE PUBLISHER

RADIO AMATEUR CALLBOOK, INC.

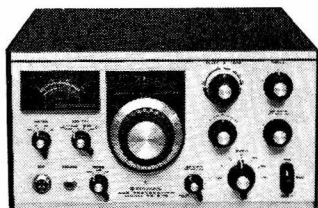
925 SHERWOOD DRIVE, LAKE BLUFF, ILLINOIS 60044, U.S.A.

The finest equipment...the best values...from Henry Radio



KENWOOD'S TS-900 ... the ultimate!

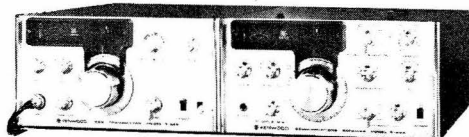
Kenwood's promise to be the pacesetter in the field of short wave radio equipment has been fulfilled ... setting new standards of performance, reliability, flexibility, high styling and value. No matter what you own now, prepare to trade UP. Become the proud owner of the world's most technologically advanced general purpose solid state SSB transceiver. The TS-900 \$745.00, The PS-900 (AC Supply) \$110.00, the DS-900 \$130.00, External VFO-900 \$195.00



KENWOOD'S TS-511S

The Kenwood TS-511S is a five band SSB and CW transceiver, packed with power and performance ... offering features never before available in its price range. For example: built-in VOX, crystal calibrator, noise blanker, receiver incremental tuning, 1 KHz frequency readout, 8 pole filter, stable FET VFO, dual conversion and accessory CW filter. \$415.00

PS-511S (AC Power Supply) \$105.00

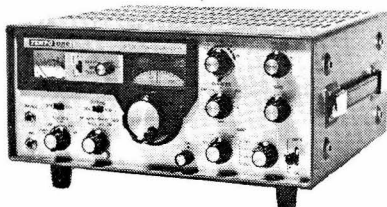


KENWOOD'S WINNING PAIR

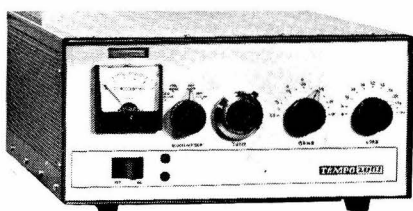
Never before has there been an amateur receiver and transmitter like the Kenwood R-599 solid state receiver and T-599 hybrid transmitter. Please write for complete specifications ... you'll be impressed.

The R-599 \$349.00 The T-599 \$395.00

The TEMPO 'ONE'



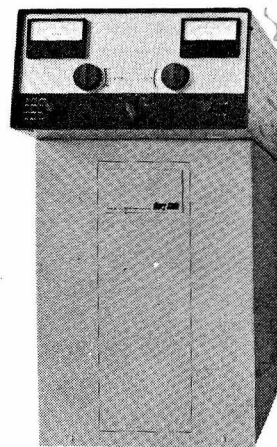
The Tempo 'ONE' SSB transceiver represents the culminating achievement of many years of experience in the amateur radio field. Modern design, superb performance, sturdy construction, outstanding reliability ... at a surprisingly low price makes the Tempo 'ONE' the best buy in transceivers today. \$319.00



The TEMPO/2001

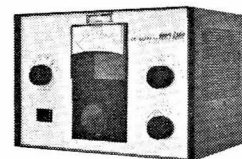
Powerful, reliable, small ... and inexpensive. One full KW of power for SSB operation. Features two Eimac 8874 grounded grid triodes, built-in solid state power supply, built-in antenna relay. Compatible with the Tempo 'ONE' and most other amateur transceivers, \$545.00.

The 2K-4 LINEAR AMPLIFIER



The 2K-4 linear amplifier offers engineering, construction and features second to none, and at a price that makes it the best amplifier value ever offered to the amateur. Constructed with a ruggedness guaranteed to provide a long life of reliable service, its heavy duty components allow it to loaf along even at full legal power. If you want to put that strong clear signal on the air that you've probably heard from other 2K users, now is the time. Move up to the 2K-4. Floor console or desk model ... \$795.00

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Also a complete line of high power linear amplifiers for commercial and military use and industrial power generators for plasma generation. Please call or write.

TEMPO ... the worlds most complete line of advanced VHF FM equipment

TEMPO/CL220 VHF transceiver.

Commercial performance at amateur prices. 220-225 MHz, 12-channel capability, 10 watts or 3 watts out.

\$329.00



TEMPO/CL146 Same superb quality as the CL220. 146-148 MHz \$279.00

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TEMPO/6N2 Embodies most of the fine features of the Tempo 2001 amplifier ... but for 6 and 2 meter operation.

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Please come in, call or write for complete information on any of the superb products listed.

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Butler, Missouri 64730

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714/772-9200
816/679-3127

radio amateur **callbook** magazine

known the world over as the "CALLBOOK"

RADIO AMATEURS OF THE U. S. A.

VOLUME 50
NUMBER 4

ALL K AND W CALLS

WINTER 1972-73

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DIRECTORY

FIRST CALL AREA	1	SIXTH CALL AREA	314
Includes the States of Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont.		Includes the State of California.	
SECOND CALL AREA	42	SEVENTH CALL AREA	394
Includes the States of New Jersey and New York.		Includes the States of Arizona, Idaho, Montana, Nevada, Oregon, Utah, Washington and Wyoming.	
THIRD CALL AREA	114	EIGHTH CALL AREA	437
Includes the States of Delaware, Maryland, Pennsylvania, and the District of Columbia.		Includes the States of Michigan, Ohio and West Virginia.	
FOURTH CALL AREA	164	NINTH CALL AREA	502
Includes the States of Alabama, Florida, Georgia, Kentucky, North and South Carolina, Tennessee and Virginia.		Includes the States of Illinois, Indiana and Wisconsin.	
FIFTH CALL AREA	256	TENTH CALL AREA	563
Includes the States of Arkansas, Louisiana, Mississippi, New Mexico, Oklahoma and Texas.		Includes the States of Colorado, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota and South Dakota.	
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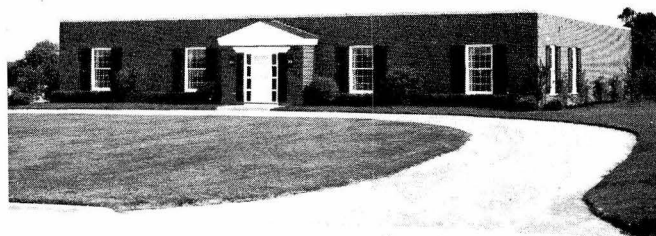
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The Home of RADIO AMATEUR CALLBOOK a modern air-conditioned building planned for maximum efficiency in the production of Callbooks and Callbook products.

A year around staff, through the use of electronic data processing equipment, evaluates and compiles the directory information received daily from all over the world. Extensive library and historical records are maintained to provide the most complete and accurate Callbook possible to produce.

The Callbook had its beginning back in 1920 when there were just a few radio amateurs. Today, Callbooks and Callbook products are in use in every country of the world.

SWAN ELECTRONICS —First In Quality!

Beginning in 1973, Hams everywhere can reap the value of highly reliable fully solid-state products. **SWAN ELECTRONICS** leads the way in achieving this practical breakthrough.

It's not surprising. Since **SWAN** was first to introduce single sideband transceivers that hams could afford, we have consistently brought you the newest practical values in the state-of-the-art. **SWAN** now offers you the opportunity to enjoy this new evolution in amateur radio equipment. The full story is in **SWAN's NEW 1973 CATALOG**. (To get your personal copy, just complete and mail the nearby coupon to: **SWAN ELECTRONICS**, 305 Airport Road, Oceanside, CA 92054.)

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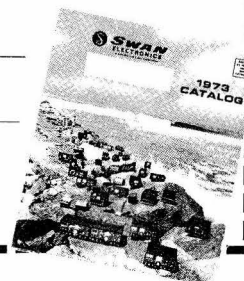
Name: _____

Address: _____

City: _____

State: _____ Zip Code: _____

Call: _____



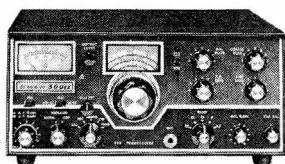
Full details and specifications are contained in the **1973 SWAN ELECTRONICS CATALOG** of Amateur Radio Equipment. Write for your **FREE** copy, today.



SWAN SS-15—15 Watt P.E.P. Solid-State Transceiver. Covers all amateur bands 80 thru 10 Meters **\$579.00**

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500CX

SWAN 500CX—550 Watts P.E.P. SSB CW/AM Transceiver. Covers all amateur bands 80 thru 10 Meters. **\$529.95**
(With **SS-16B** Super-Selective Filter **\$589.95**)

SWAN 117-XC—Power supply. 117V AC. **\$109.95**

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SWAN FM-1210A—10 Watts P.E.P. SSB Transceiver. 144 channel combinations on 2 Meter FM. Includes AC power supply & Microphone **\$359.95**



270B

SWAN 270B—260 Watts P.E.P. SSB Transceiver. Built-in speaker and AC power supply. Covers all amateur bands, 80 thru 10 Meters **\$469.95**
(With **SS-16B** **\$529.95**)

SWAN 1200X—5 Band Linear Amplifier. 1,200 Watts P.E.P. with built-in power supply **\$259.95**

SWAN VHF-150—2 Meter Linear Amplifier. 180 Watts P.E.P. **\$299.95**

SWAN MARK II—Linear Amplifier. 2,000 Watts P.E.P. 80 thru 10 Meters... **\$679.95**

SWAN MARK 6B—Linear Amplifier. 2,000 Watts P.E.P. 50 to 54 mHz. **\$679.95**

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SWAN 600R—Companion Receiver for 600T **\$439.95**

600R Custom **\$545.95**

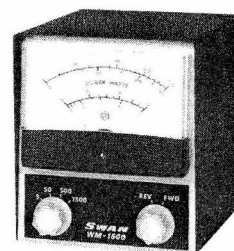
600R Custom with **SS-16B** . . . **\$599.95**

SWAN 250C—240 Watts P.E.P. SSB CW/AM Transceiver. 50 to 54 mHz **\$469.95**

SWAN FM-2X—10 Watts P.E.P. SSB Transceiver. 12 channel, 2 Meter FM unit with built-in speaker; AC supply and Microphone **\$299.95**

SWAN TV-2C—240 Watts P.E.P. 2 Meter Transverter **\$359.95**

ACCESSORIES:



SWAN WM-1500 In-line Wattmeter. 5, 50, 500 & 1500 Watt scales **\$49.95**

SWAN 600S—Speaker **\$21.95**

SWAN 600SP—Deluxe speaker with phone patch **\$64.50**

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SWAN 600R AM Filter **\$39.95**

SWAN 14-117—Power Supply . **\$139.95**

SWAN 14-C—DC Converter . . . **\$69.95**

SWAN 510X—VFO **\$53.95**

SWAN 508—VFO **\$159.95**

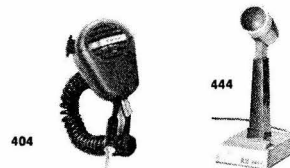
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SWAN 160—VFO **\$119.00**

SWAN VX-2—VOX **\$35.95**

SWAN FP-1—Phone Patch . . . **\$48.95**

SWAN NS-1—Noise Blanker . . **\$39.95**



SWAN 444—Desk Mike **\$28.50**

SWAN 404—Hand Mike **\$21.95**

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PREFIXES—BY COUNTRIES

The following countries listed in alphabetical order by country show international radio amateur prefixes. Characters in () designate the continent and zone in which the country is located. Abbreviations are as follows: A—Asia, AF—Africa, E—Europe, NA—North America, O—Oceania, SA—South America.

Afghanistan.....(A-21).....YA
 Agalega Is.....(AF-39).....3B6
 Aland Is.....(E-15).....OHØ
 Alaska.....(NA-1).....KL7
 Albania.....(E-15).....ZA
 Algeria.....(AF-33).....7X
 Amsterdam & St. Paul Is.....(AF-39).....FB8Z
 Andaman & Nicobar Is.....(A-26).....VU2
 Andorra.....(E-14).....C31
 Angola.....(AF-36).....CR6
 Antarctica.....(CE9AA-AM, FB8Y, KC4,
 LA, LU-Z, UA1, VKØ, VP8, ZL5, 3Y, 8J
 Argentina.....(SA-13).....LU
 Ascension Is.....(AF-36).....ZD8
 Auckland & Campbell Is.....(O-32).....ZL
 Australia.....(O-29 & 30).....VK
 Austria.....(E-15).....OE
 Aves Is.....(SA-8).....YVØ
 Azores Is.....(E-14).....CT2

Bahama Is.....(NA-8).....VP7
 Bahrain Is.....(A-21).....MP4B
 Bajo Nuevo Is.....(NA-7).....HKØ
 Baker Is.....(O-31).....KB6
 Balearic Is.....(E-14).....EA6
 Bangladesh.....(A-22).....S2, S3
 Barbados Is.....(NA-8).....8P6
 Belgium.....(E-14).....ON
 Belize (British Honduras).....(NA-7).....VP1
 Bangladesh.....(A-22).....AP
 Bermuda Is.....(NA-5).....VP9
 Bhutan.....(A-22).....A51
 Bolivia.....(SA-10).....CP
 Botswana.....(AF-38).....A2C
 Bouvet Is.....(AF-38).....3Y
 Brazil.....(SA-11).....PY
 British Phoenix Is.....(O-31).....VR1
 Brunei.....(O-28).....V55
 Bulgaria.....(E-20).....LZ
 Burma.....(A-26).....XZ2
 Burundi.....(AF-36).....9U5

Cambodia/Khmer Rep.....(A-26).....XU
 Cameroon.....(AF-36).....TJ
 Canada.....(NA-1 to 5).....VE
 Canal Zone.....(NA-7).....KZ5
 Canary Is.....(AF-33).....EA8
 Canton Is.....(O-31).....KB6
 Cape Verde Is.....(AF-35).....CR4
 Capri Is.....(E-15).....IC
 Caroline Is.....(O-27).....KC6
 Cayman Is.....(NA-8).....ZF1
 Central African Republic.....(AF-36).....TL8
 Ceuta & Melilla, Spanish.....(A-33).....EA9
 Ceylon (Rep. of Sri Lanka).....(A-22).....457
 Chad Republic.....(AF-36).....T8
 Chagos Is.....(AF-39).....VQ9
 Channel Is.....(E-14).....GC
 Chatham Is.....(O-32).....ZL
 Chile.....(SA-12).....CE
 China.....(A-23 & 24).....BY
 Christmas Is.....(O-29).....VK9X
 Clipperton Is.....(NA-7).....FØ8
 Cocos Is.....(NA-7).....T19
 Cocos (Keeling) Is.....(O-29).....VK9Y
 Colombia.....(SA-9).....HK
 Comoro Is.....(AF-39).....FH8, FB8
 Congo, Republic of.....(AF-36).....TN8
 Cook Is.....(O-32).....ZK1
 Corsica.....(E-15).....FC
 Costa Rica.....(NA-7).....TI
 Crete, Greece.....(E-20).....SV, SZØ
 Crozet Is.....(AF-39).....FB8W
 Cuba.....(NA-8).....CM, CO
 Cyprus.....(A-20).....ZC4, 5B4
 Czechoslovakia.....(E-15).....OK, OL

Dahomey.....(AF-35).....TY
 Das Is.....(A-21).....MP4D
 Denmark.....(E-14).....ØZ
 Dodecanese Is.....(E-20).....SV5
 Dominican Republic.....(NA-8).....HI

Easter Is.....(SA-12).....CEØA
 Ecuador.....(SA-10).....HC
 Egypt (United Arab Rep.).....(AF-34).....SU
 El Salvador.....(NA-7).....YS
 Enderbury Is.....(O-31).....KB6
 England.....(E-14).....G
 Ethiopia.....(AF-37).....ET3

Faeroes Is.....(E-14).....OY
 Falkland Is.....(SA-13).....VP8
 Fernando de Noronha.....(SA-11).....PYØ
 Fiji.....(O-32).....VR2
 Finland.....(E-15).....ØH
 France.....(E-14).....F
 French Polynesia.....(O-32).....FØ8

Gabon Republic.....(AF-36).....TR8
 Galapagos Is.....(SA-10).....HC8
 Gambia.....(AF-35).....ZØ3
 German Federal Rep, West.....(E-14)DA, B, C, F, J, K, L
 German Dem. Rep, East.....(E-14).....DM
 Ghana.....(AF-35).....9G1
 Gibraltar.....(E-14).....ZB2
 Gilbert, Ellice & Ocean Is.....(O-31).....VR1
 Gilloren Is.....(AF-39).....FR7
 Gozo.....(E-15).....9H4
 Graham Land.....(SA-13)VP8, LU-Z
 Greece.....(E-20).....SV, SZØ
 Greenland.....(NA-40).....ØX
 Guadeloupe.....(NA-8).....FG7
 Guam Is.....(O-27).....KG6
 Guantánamo Bay.....(NA-8).....TG4
 Guatemala.....(NA-7).....TG
 Guiana, French.....(SA-9).....FY7
 Guinea, Equatorial.....(AF-36).....3C
 Guinea, Portuguese.....(AF-35).....CR3
 Guinea, Republic of.....(AF-35).....3X, 7G1
 Guyana.....(SA-9).....8R

Haiti.....(NA-8).....HH
 Hawaii.....(O-31).....KH6
 Heard Is.....(O-39).....VKØ
 Honduras.....(NA-7).....HR
 Hong Kong.....(A-24).....VS6
 Howland Is.....(O-31).....KB6
 Hungary.....(E-15).....HA, HG

Iceland.....(E-40).....TF
 India.....(A-22).....VU2
 Indonesia.....(O-28).....YB, YC, YD
 Iran.....(A-21).....EP
 Iraq.....(E-14).....YI
 Ireland.....(E-14).....EI
 Isle of Man.....(E-14).....GD
 Israel.....(O-31).....4X4, 4Z4
 Italy.....(E-15).....I
 Ivory Coast.....(AF-35).....TU2

Jamaica.....(NA-8).....6Y5
 Jan Mayen Is.....(E-40).....JX
 Japan.....(A-25).....JA, JE, JH, J
 Jarvis Is.....(O-31).....KP6
 Johnston Is.....(O-31).....KJ6
 Jordan.....(A-20).....JY
 Juan de Nova Is.....(AF-39).....FR7
 Juan Fernandez Is.....(SA-12).....CEØZ

Kamran Is.....(A-21).....VS9K
 Kenya.....(AF-37).....5Z4
 Kerguelen Is.....(AF-39).....FB8X
 Kermadec Is.....(O-32).....ZL
 Korea.....(A-25).....HM, HL9
 Kure Is.....(O-31).....KH6
 Kuwait.....(A-21).....9K2

Labrador.....(NA-2).....VO2
 Laccadive Is.....(A-22).....VU2
 Lampedusa Is.....(E-15).....IG9
 Laos.....(A-26).....XW8
 Lebanon.....(A-20).....ØD5
 Leeward Is.....

Anguilla.....(NA-8).....VP2E
 Antigua, Barbuda.....(NA-8).....VP2A
 British Virgin Is.....(NA-8).....VP2V
 Montserrat.....(NA-8).....VP2M
 St. Kitts, Nevis.....(NA-8).....VP2K
 Lesotho.....(AF-38).....7P8
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 Libya.....(AF-34).....5A
 Liechtenstein.....(E-14).....HBØ, HE
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 Lord Howe Is.....(O-30).....VK2
 Luxembourg.....(E-14).....LX

Macao.....(A-24).....CR9
 Macquarie Is.....(O-30).....VKØ
 Madeira Is.....(AF-33).....CT3
 Malagasy Republic.....(AF-39).....5R8
 Malawi.....(AF-37).....7Ø7
 Malaysia, East.....(A-28).....9M6, 8
 Malaysia, West.....(A-28).....9M2, 4
 Maldives Is.....(A-22).....8Ø6, VS9M
 Mali Republic.....(AF-35).....TZ
 Malpelo Is.....(SA-9).....HKØ
 Malta.....(E-15).....9H1
 Manihiki Is.....(O-31).....ZK1
 Mariana Is. (Saipan).....(O-27).....KG6R, S, T
 Market Reef.....(E-15).....ØJØ, ØHØM
 Marshall Is.....(O-31).....KX6
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 Mauritius Is.....(AF-39).....3B8
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 Midway Is.....(O-31).....KM6
 Minami-Tori-Shima Is.....(A-25 & O-27)JD1
 Monaco.....(E-14).....3A
 Mongolia.....(A-23).....JT1
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 Navassa Is.....(NA-8).....KC4
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 Newfoundland.....(NA-5).....VO1
 New Guinea Territory.....(O-28).....VK9AA-MZ
 New Hebrides.....(O-32).....FØ8, YJ
 New Zealand.....(O-32).....ZL
 Nicaragua.....(NA-7).....YN, ZT
 Niger.....(AF-35).....5U7
 Nigeria.....(AF-35).....5N2
 Niue Is.....(O-32).....ZK2
 Norfolk Is.....(O-32).....VK9N
 Northern Ireland.....(E-14).....GI
 Norway.....(E-14)LA, LF, LG, LJ

Ogasawara Is. (Bonin Is.).....(A-27).....JD
 Okinawa (Ryukyu Is.).....(A-25).....JR6
 Oman.....(A-21).....MP4M

Pakistan.....(A-21).....AP
 Palmyra Is.....(O-31).....KP6
 Panama.....(NA-7).....HP
 Pantelleria Is.....(AF-33).....IH
 Papua Territory.....(O-28).....VK9AA-MZ
 Paraguay.....(SA-11).....ZP
 Peru.....(SA-10).....ØA
 Philippines.....(O-27).....DU
 Phoenix Is.....(O-31).....KB6
 Pianosa Is.....(E-14).....IA
 Pitcairn Is.....(O-32).....VR6
 Poland.....(E-15).....SP
 Portugal.....(E-14).....CT1
 Prince Edward & Marion Is.....(AF-38).....ZS2
 Principe & Sao Tome Is.....(A-36).....CR5
 Puerto Rico.....(NA-8).....KP4

Qatar.....(A-21).....MP4Q

Reunion Is.....(AF-39).....FR7
 Revilla Giedo Is.....(NA-6).....XE4
 Rhodesia.....(AF-38).....ZE
 Rodriguez Is.....(AF-39).....3B9
 Romania.....(E-20).....YO
 Rwanda.....(AF-36).....9X5
 Ryukyu Is. (Okinawa).....(A-25).....JR6

Sabah.....(O-28).....9M6
 St. Brandon Is.....(AF-39).....3B7
 Saint Helena Is.....(AF-36).....ZD7
 Saint Martin Is.....(NA-8).....FS7
 St. Peter & St. Paul's Rocks (SA-11).....PYØ
 Saint Pierre & Miquelon Is.....(NA-5).....FP8
 Samoa, American.....(O-32).....KS6
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 San Andres & Providencia.....(NA-7).....HKØ
 San Felix Is.....(SA-12).....CEØX
 San Marino.....(E-15).....M1
 Sao Tome & Principe Is.....(A-36).....CR5
 Sarawak.....(O-28).....9M8
 Sardinia.....(E-15).....IS
 Saudi Arabia.....(A-21).....HZ, 7Z
 Saudi Arabia/Iraq

Neutral Zone.....(A-21).....8Z4
 Scotland.....(E-14).....GM
 Senegal Republic.....(AF-35).....6W8
 Serrana Bk & Roncador Cay (NA-7).....KS4B, HKØ
 Seychelles Is.....(AF-39).....VQ9
 Sicily.....(E-15).....IT
 Sierra Leone.....(AF-35).....9L1
 Sikkim.....(A-22).....AC3
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 South Orkney Is.....(SA-13).....VP8
 South Sandwich Is.....(SA-13).....VP8
 S. Shetland Is.....(SA-13).....CE9AN-AZ, VP8
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 South Yemen.....(A-21).....VS9A, P, S, 7Ø
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European Russian Soviet Federated
 Socialist Republic.....(E-16)UA1, 2, 3, 4, 6
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Armenian S. S. R.....(A-21).....UG6
 Azerbaidzhan S. S. R.....(A-21).....UD6
 Estonian S. S. R.....(E-15).....UR2
 Franz Josef Land.....(NA-40).....UA1
 Georgian S. S. R.....(A-21).....UF6
 Kaliningradsk.....(E-15).....UA2
 Kazakh S. S. R.....(A-17).....UL7
 Kirghiz S. S. R.....(A-17).....UM8
 Latvian S. S. R.....(E-15).....UQ2
 Lithuanian S. S. R.....(E-15).....UP2
 Moldavian S. S. R.....(E-16).....UØ5
 Tadzhik S. S. R.....(A-17).....UJ8
 Turkmen S. S. R.....(E-16).....UB5
 Ukrainian S. S. R.....(A-17).....UI8
 Uzbek S. S. R.....(E-16).....UC2
 White Russian S. S. R.....(E-14).....EA

Spain.....(E-14).....EA
 Spanish Sahara (Rio de Oro) (A-23).....EA9
 Sri Lanka (Ceylon).....(A-22).....457
 Sudan.....(AF-34).....ST
 Surinam.....(SA-9).....PZ
 Svalbard Is.....(E-40).....JW
 Swan Is.....(NA-7).....KS4, HRØ
 Swaziland.....(AF-38).....3Ø6
 Sweden.....(E-14).....SK, SL, SM
 Switzerland.....(E-14).....HB
 Syria.....(A-20).....YK

Taiwan (Formosa).....(A-24).....BV
 Tanganyika (Tanzania).....(AF-37).....5H3
 Tasmania.....(O-30).....VK7
 Thailand.....(A-26).....HS
 Tibet.....(A-23).....AC4
 Timor Is. (Portuguese).....(O-28).....CR8
 Togo.....(AF-35).....5V
 Tokelau Is.....(O-31).....ZM7
 Tonga.....(O-32).....A35
 Trindade & Martin Vaz Is.....(SA-11).....PYØ
 Trinidad & Tobago Is.....(SA-9).....9Y4
 Tristan de Cunha & Gough.....(AF-38).....ZD9
 Tromelin Is.....(AF-39).....FR7
 Trucial States.....(A-21).....MP4T
 Tunisia.....(AF-33).....3V8
 Turkey.....(A-20).....TA, TC
 Turks & Caicos Is.....(NA-8).....VP5

Uganda.....(AF-37).....5X5
 United Nations, Geneva.....(E-14).....4U
 United States of America.....(NA-3, 4, 5).....W, K
 Upper Volta.....(AF-35).....XT2
 Uruguay.....(SA-13).....CX

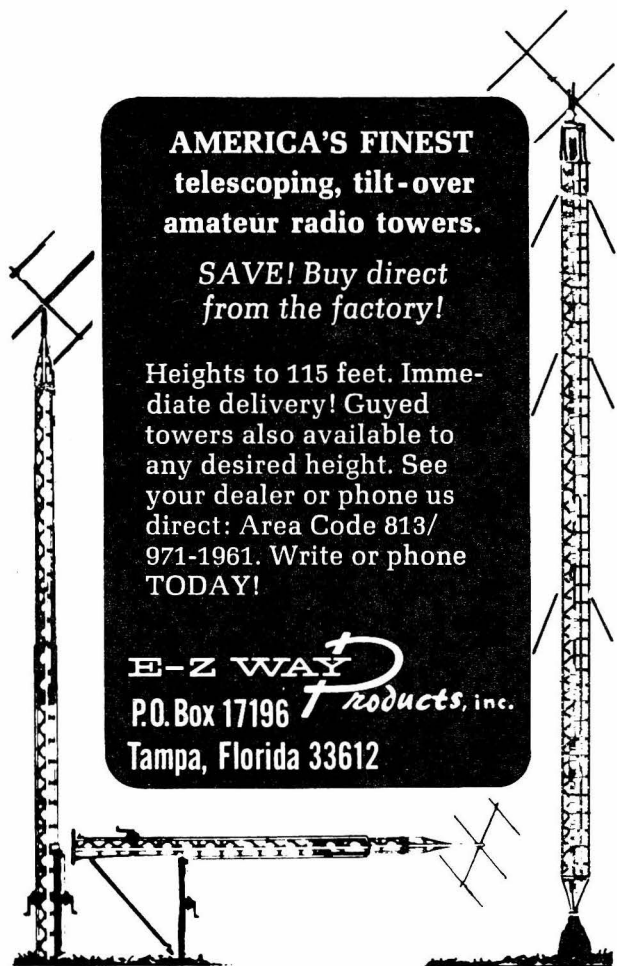
Vatican City.....(E-15).....HV
 Venezuela.....(SA-9).....YV
 Vietnam.....(A-26).....3W8
 Virgin Is.....(NA-8).....KV4

Wake Is.....(O-31).....KW6
 Wales.....(E-14).....GW
 Wallis & Futuna Is.....(O-32).....FW8
 Willis Is.....(O-30).....VK4
 Windward Is.

Dominica.....(NA-8).....VP2D
 Grenada & Dependencies.....(NA-8).....VP2G
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Yemen.....(A-21).....4W1, 3
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Zaire, Republic of.....(AF-36).....9Q5
 Zambia.....(AF-36).....9I, 9J
 Zanzibar (Tanzania).....(AF-37).....5H1, VQ1



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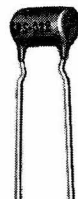
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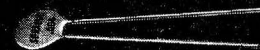
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INTERNATIONAL RADIO AMATEUR PREFIXES

The following prefixes are listed in alphabetical order for convenience in locating the country when DX calls are heard.

A2C..... Botswana
A35..... Tonga
A51..... Bhutan
AC3..... Sikkim
AC4..... Tibet
AP..... Bangladesh
AP..... Pakistan

BV..... Taiwan
BY..... China

CE..... Chile
CE9AA-AM..... Chilean Antarctica,
Tierra de O'Higgins, Palmer Peninsula,
Graham Land
CE9AN-AZ..... South Shetland Is.
CE0A..... Easter Is.
CE0X..... San Felix Is.
CE0Z..... Juan Fernandez Is.
CM,CO..... Cuba
CN..... Morocco
CP..... Bolivia
CR3..... Portuguese Guinea
CR4..... Cape Verde Is.
CR5..... Sao Tome & Principe Is.
CR6..... Angola
CR7..... Mozambique
CR8..... Timor Is. (Portuguese)
CR9..... Macao
CT1..... Portugal
CT2..... Azores Is.
CT3..... Madeira Is.
CX..... Uruguay
C21..... Republic of Nauru
C31..... Andorra

DA,B,C,F,J,K,L..... West German Federal Rep.
DM..... East German Democratic Rep.
DU..... Philippines

EA..... Spain
EA6..... Balearic Is.
EA8..... Canary Is.
EA9..... Spanish Sahara, Ceuta y Melilla
EI..... Ireland
EL,5L..... Liberia
EP..... Iran
ET3..... Ethiopia

F..... France
FB8W..... Crozet Is.
FB8X..... Kerguelen Is.
FB8Y..... Antarctica
FB8Z..... Amsterdam & St. Paul Is.
FC..... Corsica
FG7..... Guadeloupe
FH8..... Comoro Is.
FK8..... New Caledonia
FL8..... French Somaliland (Afars and Issas)
FM7..... Martinique
F08..... French Polynesia, Clipperton Is.
FP8..... St. Pierre & Miquelon Is.
FR7..... Glorioso, Juan de Nova, Reunion,
Tromelin Is.
FS7..... Saint Martin
FU8..... New Hebrides
FW8..... Wallis & Futuna Is.
FY7..... French Guiana

G..... England
GC..... Channel Is.
GD..... Isle of Man
GI..... Northern Ireland
GM..... Scotland
GW..... Wales

HA,HG..... Hungary
HB..... Switzerland
HB0..... Liechtenstein
HC..... Ecuador
HC8..... Galapagos Is.
HH..... Haiti
HI..... Dominican Republic
HK..... Colombia
HK0..... Bajo Nuevo, Malpelo, San Andres &
Providencia Is.
HM,HL9..... Korea
HP..... Panama
HR..... Honduras
HR0..... Swan Is.
HS..... Thailand
HT..... Nicaragua
HV..... Vatican City
HZ,7Z..... Saudi Arabia

I,IR0..... Italy
IA..... Pianosa Is.
IC..... Capri & Ischia Is.
IG9..... Lampedusa Is.
IH..... Pantelleria Is.
IS..... Sardinia
IT..... Sicily

JA,JH,JR..... Japan
JD1..... Ogasawara, Minami-Tori-Shima Is.
JR6..... Okinawa (Ryukyu Is.)
JT1..... Mongolia
JW..... Svalbard Is.
JX..... Jan Mayen Is.
JY..... Jordan

K..... United States of America

KA..... U.S. Personnel in Japan
KB6..... Baker, Canton, Enderbury,
Howland & Phoenix Is.
KC4..... Navassa Is.
KC4AA,KC4US..... Antarctica
KC6..... Caroline Is.
KG4..... Guantanamo Bay, Cuba
KG6..... Guam
KG6R,S,T..... Mariana Is.
KH6..... Hawaii & Kure Is.
KJ6..... Johnston Is.
KL7..... Alaska
KM6..... Midway Is.
KP4..... Puerto Rico
KP6..... Jarvis & Palmyra Is.
KS4..... Swan Is.
KS4B..... Serrana Bank & Roncador Cay
KS6..... American Samoa
KV4..... Virgin Is.
KW6..... Wake Is.
KX6..... Marshall Is.
KZ5..... Canal Zone

LA,LF,LG,LJ..... Norway
LU..... Argentina
LX..... Luxembourg
LZ..... Bulgaria

M1..... San Marino
MP4B..... Bahrain Is.
MP4D..... Das Is.
MP4M..... Oman
MP4Q..... Qatar
MP4T..... Trucial States

OA..... Peru
OD5..... Lebanon
OE..... Austria
OH..... Finland
OH0..... Aland Is.
OJ0,OH0M..... Market Reef
OK,OL..... Czechoslovakia
ON..... Belgium
OX..... Greenland
OY..... Faeroes Is.
OZ..... Denmark

PA,PE,PI..... Netherlands
PJ..... Netherlands Antilles
PJ2,9..... Curacao
PJ3,9..... Aruba
PJ4,9..... Bonaire
PJ5,8..... St. Eustatius
PJ6,8..... Saba Is.
PJ7,8..... Sint Maarten
PY..... Brazil
PY0..... Fernando de Noronha Is.
PY0..... St. Peter & St. Paul's Rocks
PY0..... Trindade & Martim Vaz Is.
PZ..... Surinam

SK,SL,SM..... Sweden
SP..... Poland
ST..... Sudan
SU..... Egypt (United Arab Republic)
SV,SZ0..... Crete, Greece
SV5..... Dodecanese Is.
S2,S3..... Bangladesh

TA,TC..... Turkey
TF..... Iceland
TG..... Guatemala
TI..... Costa Rica
TI9..... Cocos Is.
TJ..... Cameroon
TL8..... Central African Republic
TN8..... Republic of Congo (Brazzaville)
TR8..... Gabon
TT8..... Chad
TU2..... Ivory Coast
TY..... Dahomey
TZ..... Mali Republic

UA1,2,3,4,6..... European Russian
Soviet Federated Socialist Republic
UA9,0..... Asiatic Russian S. F. S. R.
UB5..... Ukrainian S. S. R.
UC2..... White Russian S. S. R.
UD6..... Azerbaidzhan S. S. R.
UF6..... Georgian S. S. R.
UG6..... Armenian S. S. R.
UH8..... Turkmen S. S. R.
UI8..... Uzbek S. S. R.
UJ8..... Tadzhik S. S. R.
UL7..... Kazakh S. S. R.
UM8..... Kirghiz S. S. R.
UO5..... Moldavian S. S. R.
UP2..... Lithuanian S. S. R.
UQ2..... Latvian S. S. R.
UR2..... Estonian S. S. R.

VE..... Canada
VK..... Australia
VO1..... Newfoundland
VO2..... Labrador
VP1..... Belize (British Honduras)
VP2..... Leeward & Windward Is.
VP5..... Turks & Caicos Is.
VP7..... Bahamas Is.
VP8..... Falkland, S. Georgia, S. Orkney,
S. Sandwich, S. Shetland Is., Graham Land
VP9..... Bermuda Is.
VQ1..... Zanzibar (Tanzania)
VQ9..... Chagos & Seychelles Is.

VR1..... Br. Phoenix, Ellice, Gilbert & Ocean Is.
VR2..... Fiji
VR3..... Line Is.
VR4..... Solomon Is.
VR6..... Pitcairn Is.
VS5..... Brunei
VS6..... Hong Kong
VS9A,P,S..... South Yemen
VS9K..... Khamran Is.
VS9M..... Maldives Is.
VU2..... India
VU2..... Laccadive Is.
VU2..... Andaman & Nicobar Is.

W..... United States of America

XE,XF..... Mexico
XE4..... Revilla Gigeo Is.
XT2..... Upper Volta
XU..... Cambodia/Khmer Republic
XW8..... Laos
XZ2..... Burma

YA..... Afghanistan
YB,YC,YD..... Indonesia
YI..... Iraq
YJ..... New Hebrides
YK..... Syria
YN..... Nicaragua
YO..... Romania
YS..... El Salvador
YU,YT..... Yugoslavia
YV..... Venezuela
YV0..... Aves Is.

ZA..... Albania
ZB2..... Gibraltar
ZC4..... Cyprus
ZD3..... Gambia
ZD7..... Saint Helena
ZD8..... Ascension Is.
ZD9..... Tristan da Cunha & Gough Is.
ZE..... Rhodesia
ZF1,VP5..... Cayman Is.
ZK1..... Cook & Maniniki Is.
ZK2..... Niue Is.
ZL,ZM..... New Zealand &
Auckland, Campbell, Chatham, Kermadec Is.
ZM7..... Tokelau Is.
ZP..... Paraguay
ZS1,2,4,5,6..... South Africa
ZS2..... Prince Edward & Marion Is.
ZS3..... Southwest Africa (Namibia)

3A..... Monaco
3B6..... Agalega Is.
3B7..... St. Brandon Is.
3B8..... Mauritius Is.
3B9..... Rodriguez Is.
3C..... Equatorial Guinea
3D6..... Swaziland
3VB..... Tunisia
3WB..... Vietnam
3Y..... Bouvet Is.

4S7..... Sri Lanka (Ceylon)
4U..... United Nations, Geneva, Turin
4W1..... Yemen
4X4,4Z4..... Israel

5A..... Libya
5B4..... Cyprus
5H1..... Zanzibar, Tanzania
5H3..... Tanganyika, Tanzania
5N2..... Nigeria
5R8..... Madagascar (Malagasy Republic)
5T5..... Mauritania
5U7..... Niger
5V..... Togo
5W1..... Western Samoa
5X5..... Uganda
5Z4..... Kenya

6O1,2,6..... Somali Republic
6W8..... Senegal
6Y5..... Jamaica

7G1..... Republic of Guinea
7O..... South Yemen
7P8..... Lesotho
7Q7..... Malawi
7X..... Algeria
7Z..... Saudi Arabia

8P6..... Barbados Is.
8Q6..... Maldives Is.
8R..... Guyana
8Z4..... Saudi Arabia/Iraq Neutral Zone

9G1..... Ghana
9H1..... Malta
9H4..... Gozo
9I,9J..... Zambia
9K2..... Kuwait
9L1..... Sierra Leone
9M2..... West Malaysia
9M6,8..... East Malaysia
9N1..... Nepal
9Q5..... Republic of Zaire
9U5..... Burundi
9V1..... Republic of Singapore
9X5..... Rwanda
9Y4..... Trinidad & Tobago Is.

TELEGRAPH CODES

CONTINENTAL CODE	MORSE CODE
Used in ham radio	Used on land lines in United States and Canada
<p>A </p> <p>B </p> <p>C </p> <p>D </p> <p>E </p> <p>F </p> <p>G </p> <p>H </p> <p>I </p> <p>J </p> <p>K </p> <p>L </p> <p>M </p> <p>N </p> <p>O </p> <p>P </p> <p>Q </p> <p>R </p> <p>S </p> <p>T </p> <p>U </p> <p>V </p> <p>W </p> <p>X </p> <p>Y </p> <p>Z </p>	<p>A </p> <p>B </p> <p>C </p> <p>D </p> <p>E </p> <p>F </p> <p>G </p> <p>H </p> <p>I </p> <p>J </p> <p>K </p> <p>L </p> <p>M </p> <p>N </p> <p>O </p> <p>P </p> <p>Q </p> <p>R </p> <p>S </p> <p>T </p> <p>U </p> <p>V </p> <p>W </p> <p>X </p> <p>Y </p> <p>Z </p> <p>& </p>
There are no space letters in the Continental Code	C, O, R, Y, Z and & are composed of dots and spaces T is a short dash L is a longer dash Zero (0) is usually abbreviated to T
<p>Figures</p> <p>1 </p> <p>2 </p> <p>3 </p> <p>4 </p> <p>5 </p> <p>6 </p> <p>7 </p> <p>8 </p> <p>9 </p> <p>0 </p>	<p>Figures</p> <p>1 </p> <p>2 </p> <p>3 </p> <p>4 </p> <p>5 </p> <p>6 </p> <p>7 </p> <p>8 </p> <p>9 </p> <p>0 </p>
<p>Punctuation</p> <p>(.) </p> <p>(,) </p> <p>(?) </p> <p>(:) </p> <p>(;) </p> <p>(-) </p> <p>(!) </p> <p>(') </p> <p>(/) </p> <p>() </p> <p>(") </p>	<p>Punctuation</p> <p>(.) </p> <p>(,) </p> <p>(?) </p> <p>(:) </p> <p>(;) </p> <p>(-) </p> <p>(!) </p> <p>(') </p> <p>(/) </p> <p>() </p> <p>(") </p> <p>(") </p>

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HVK1144/575	1.5	15.0	18.0	125	60.00
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HVK1126/673	1.5	15.0	18.0	125	60.00
HVK1109/866	0.5	10.0	12.0	50	7.00
HVK1139/866	0.5	10.0	17.0	50	13.00
HVK1110/872	1.25	10.0	12.0	60	13.10
HVK1138/872	1.25	10.0	17.0	60	17.80
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The ARRL Postwar Countries List is the official standard used in connection with the DX Century Club. To qualify for the DX Century Club Award, an applicant must submit confirmations from at least 100 different countries contacted after November 15, 1945, in accordance with the Postwar DXCC Rules. Copies of the DXCC Rules will be furnished by ARRL on request.

AC3.....Sikkim	KJ6.....Johnston Island	VQ9.....Chagos Islands
AC4.....Tibet	KL7.....Alaska	VQ9.....Desroches
AC.....Bhutan	KM6.....Midway Islands	VQ9.....Farquhar
AP.....East Pakistan	KP4.....Puerto Rico	VQ9.....Seychelles
AP.....West Pakistan	KP6.....Palmyra Group, Jarvis Is.	VR1.....British Phoenix Islands
AV.....Foliosa	KR6, 8.....Ryukyu Islands	VR1.....Gilbert & Ellice Is. & Ocean Island
BY.....China	KS4, HK9.....Serrana Bank & Roncador Cay	VR3.....Fiji Islands
C9.....Manchuria	KS4.....Swan Islands	VR4.....Fanning & Christmas Is.
CE.....Chile	KV4.....American Samoa	VR5.....Solomon Islands
CE9AA-AM, FB8Y, KC4, LA, LU-Z, OR4, UA1, VK8, VP8, ZL5, 8J.....Antarctica	KV6.....Virgin Islands	VR6.....Tonga Islands
CE9AN-AZ (See VP8)	KW6.....Wake Island	VR6.....Pitcairn Island
CE9A.....Easter Island	KX6.....Marshall Islands	*VS1, 9M4, 9V1.....Singapore
CEJX.....San Felix	KZ5.....Canal Zone	VS1, 9M2 (See 9M2, 4)
CEQZ.....Juan Fernandez arch.	LA, LG.....Norway	VS2 (See 9M2)
CM, CO.....Cuba	LA/P (See JX, JW)	*VS4.....Sarawak
CM2, 8, 9.....Tangier	LA/G (See 3Y)	VS4, ZC5 (See 9M6, 8)
CP.....Morocco	LA (See CE9AA-AM)	VS5.....Brunei
CR2, 8, 9.....Bolivia	LU.....Argentina	VS5.....Hong Kong
CR3, 5.....Portuguese Guinea	LU, ZC6 (See 9AA-AM, P, VP8)	VS9A.....Aden & Socotra
CR4.....Cape Verde Islands	LX.....Luxembourg	VS9K.....Kamanar Is.
CR5.....Principe, Sao Thome	LZ.....Bulgaria	*VS9H.....Kuria Muria Is.
CR6.....Angola	M1 (See 9A1)	VS9M (See 8Q)
CR7.....Mozambique	MP4B.....Bahrein	VS90 (See MP4M)
*CR8.....Damao, Diu	MP4Q.....Qatar	VU.....Andaman & Nicobar Is.
*CR8, CR10.....Portuguese Timor	MP4M, VS90.....Sultanate of Muscat & Oman	VU.....Laccadive Islands
CR9.....Macao	MP4D, T.....Trucial Oman	W (See K)
CT1 (See CE9AA-AM)	OA.....Peru	XE, XF, 4A.....Mexico
CT2.....Azores	OE.....Lebanon	XF4.....Revilla Gigeo
CT3.....Madeira Islands	OH, OF.....Austria	XP (See 8X)
CX.....Uruguay	OH0.....Aland Islands	*XT.....Volaire Rep.
DJ, DK, DL, DM.....Germany	OK.....Czechoslovakia	XU.....Cambodia
DU.....Philippine Islands	ON.....Belgium	XV5 (See 3W8)
EA.....Spain	OQ5, 0 (See 9Q5)	XW8.....Laos
EA6.....Balearic Islands	OR4 (See CE9AA-AM)	XZ2.....Burma
EA8.....Canary Islands	OX, KG1, XP.....Greenland	YA.....Afghanistan
EA9.....Illi	OY.....Faroe Islands	Y1 (FUB).....Iraq
EA9.....Rio de Oro	PA, PE, PI.....Denmark	YK.....New Hebrides
EAD.....Spanish Morocco	PA.....Netherlands	YN.....Syria
EAD.....Spanish Guinea	PJ-M, S.....Netherlands Antilles	Y0, YNB.....Nicaragua
EL.....Republic of Ireland	PJ-M, S.....Sint Maarten	YS.....Rumania
EL.....Liberia	PK (See 8F)	YU.....Yugoslavia
EP.....Iran	*PK1, 2, 3.....Java	YU.....Venezuela
*ET2.....Eritrea	*PK4.....Sumatra	YV.....Aves Island
ET3.....Ethiopia	*PK5.....Netherlands Borneo	ZA.....Albania
F.....France	*PK6.....Celebes & Molucca Islands	ZB1 (See 9H1)
FA (See 7X)	PK.....Andorra	ZB2.....Gibraltar
FB8Z.....Amsterdam & St. Paul Is.	PY.....Brazil	ZC3 (See VK9)
FB8Y (See CE9AA-AM)	PY9.....Fernando de Noronha	ZC4 (See 5B4)
FBW.....Crozet Is.	PY0.....St. Peter & St. Paul's Rocks	ZC5 (See 9M6, 8)
FBX.....Kerguelen Islands	PY0.....Trinidad & Martin Vaz Is.	*ZC5.....British North Borneo
FB8 (See FH8)	PZ1.....Surinam	*ZC6.....Palestine
FB8 (See 5R8)	SK, SL, SM.....Sweden	ZD1 (See 9L1)
FB8 (See FR7)	SP.....Poland	ZD2 (See 5N2)
*FC.....Corsica	ST2.....Sudan	ZD3.....The Gambia
FD (See 5V)	SU.....Egypt	ZD4 (See 9G1)
FE8 (See TJ)	SV.....Crete	*ZD4.....Gold Coast, Togoland
FF4 (See TU)	SV.....Bodegense	ZD5, Z57.....Swaziland
FF7 (See 5T)	TA.....Greece	ZD6 (See 7Q7)
FF8 (See TY)	TA.....Turkey	ZD7.....St. Helena
FF8 (See T2)	TA.....Iceland	ZD8.....Ascension Island
FF8 (See 5U7)	TG.....Guatemala	ZD9.....Tristan da Cunha & Gough Island
FF8 (See XT)	TI.....Costa Rica	ZE.....Rhodesia
FF8 (See 6W8)	TI9.....Cocos Island	ZF1, VP5.....Cayman Islands
*FF8.....French West Africa	TJ, FB8.....Cameroun	ZK1.....Cook Islands
FG7.....Guadeloupe	*TL.....Central African Rep.	ZK2.....Manihiki Islands
FH8, FB8.....Comoro Islands	*TR.....Gongo Rep.	ZL.....Niue
*F8.....French Indo-China	*TT.....Gabon Rep.	ZL.....Auckland Is. & Campbell Is.
FK8.....New Caledonia	*TU.....Ivory Coast	ZL.....Chatham Islands
FM7.....French Somaliland	*TY.....Dahomey Rep.	ZL.....Kermadec Islands
*FN.....Mauritania	*TZ.....Mali Rep.	ZL.....New Zealand
F08.....Clipperton Island	UA, UV, UW1-6, UN1.....European Russian S. F. S. R.	ZL5 (See CE9AA-AM)
F08.....French Oceania	UA1.....Franz Josef Land	ZM6 (See 5W1)
F08M.....Maria Theresa	UA1 (See CE9AA-AM)	ZM7.....Tokelau
FP8.....St. Pierre & Miquelon Is.	UA.....Kaliningradsk	ZP.....Paraguay
FQ8 (See TL)	UA, UV, UW9, 0.....Asiatic R. S. F. S. R.	ZS1, Z4, 5, 6.....South Africa
FQ8 (See TN)	UB5, UT5, UY5.....Ukraine	ZS2.....Prince Edward & Marion Is.
FQ8 (See TR)	UC2.....White Russian, S. S. R.	ZS3.....Southwest Africa
*FQ8.....French Equatorial Africa	UD6.....Azerbaijan	ZS7 (See ZD5)
*FR7.....Glorioso Islands	UF6.....Georgia	ZS8 (See 7P8)
*FR7.....Juan de Nova	UG6.....Armenia	ZS9.....Botswana
FR7.....Reunion	UH8.....Turkoman	1M.....Minerva Reefs
FR7.....Tronelin	UI8.....Uzbek	1S.....Spratly Is.
FS7.....Saint Martin	UJ8.....Tadzhik	3B, 3C (See VE)
FUB (See YJ)	UL7.....Kazakh	3VB.....Tunisia
FW8.....Wallis & Futuna Islands	UM8.....Kirghiz	3WB, XV5.....Vietnam
FY7.....French Guiana & Imini	*UN1.....Karelo-Finnish Republic	3X, (7G).....Rep. of Guinea
G.....England	UP2.....Moldavia	3Y, LA/G.....Bouvet Island
GC.....Guernsey & Dependencies	U05.....Lithuania	4A (See XE)
GC.....Jersey Island	U02.....Latvia	4S7.....Ceylon
GD.....Isle of Man	UR2.....Estonia	4U.....I.T.U. Geneva
GI.....Northern Ireland	VE, VO, 3B, 3C.....Canada	4W.....Yemen
GM.....Scotland	VK.....Australia (inc. Tasmania)	4X, 4Z.....Israel
GW.....Wales	VK.....Lord Howe Island	5B.....Libya
HA, HG.....Hungary	VK9.....Willis Islands	5C.....Cyprus
H8, HE.....Liechtenstein	VK9.....Christmas Island	5H3, VQ3.....Tanganyika
HC.....Ecuador	VK9.....Cocos Islands	5N2, ZD2.....Nigeria
HC8.....Galapagos Islands	VK9.....Nauru Island	5R8, FB8.....Malagasy Rep.
HE (See HB8)	VK9.....Norfolk Island	*5T.....Mauritania
HH.....Haiti	VK9.....Papua Territory	*5U7.....Niger Rep.
HI.....Dominican Republic	VK8 (See CE9AA-AM)	5V.....Togo Rep.
HK.....Colombia	VK8.....Heard Island	5W1, ZM6.....Western Samoa
HKD.....Bajo Nuevo	VK8.....Macquarie Island	5X5, VQ5.....Uganda
HKD.....Malpelo Is.	VO (See VE)	ZZ4, VQ4.....Kenya
HKD (See KS4B)	*VO.....Newfoundland, Labrador	601, 2, 6.....Somali Rep.
HL, HM.....Korea	VP1.....British Honduras	*6WB, FB8.....Senegal Rep.
HP.....Panama	*VP2K.....Anguilla	6Y5, VP5.....Jamaica
HR.....Honduras	*VP2A.....Antigua, Barbuda	*7G1 (See 3X)
HS.....Thailand	*VP2V.....British Virgin Islands	7P8, ZS8.....Lesotho
HV.....Vatican	*VP2D.....Dominica	7Q7, ZD6.....Malawi
HZ, 7Z.....Saudi Arabia	*VP2G.....Grenada & Dependencies	7X, FA.....Algeria
I.....Italy	*VP2M.....Montserrat	7Z (See HZ)
*I1.....Trieste	*VP2K.....St. Kitts, Nevis	*8F, PK.....Indonesia
*IS.....Italian Somaliland	*VP2L.....St. Lucia	8J (See CE9AA-AM)
IS1.....Sardinia	*VP2S.....St. Vincent & Dependencies	8P, VP6.....Barbados
JA, JH, KA.....Japan	VP3 (See 8R)	8Q, VS9M.....Maldives Islands
JT.....Mongolia	VP4 (See 9Y4)	8R, VP3.....Guyana
JX, LA/P.....Jan Mayen	VP5 (See ZF1)	8Z4.....Saudi Arabia/Iraq Neutral Zone
JY.....Jordan	VP5 (See 6Y5)	8Z5 (See 9K3)
JW, LA/P.....Svalbard	VP6 (See 8P)	9A1, (M1).....San Marino
K.....United States of America	VP7.....Bahama Islands	*9G1, ZD4.....Ghana
KA (See JA)	VP8 (See CE9AA-AM)	9H1, ZB1.....Zambia
KA1 (See KG61)	VP8.....Falkland Islands	9J2, VQ2.....Bouvet Island
KB6.....Baker, Howland & American Phoenix Islands	VP8, LU-Z.....So. Georgia Is.	9K2.....Kuwait
KC4 (See CE9AA-AM)	VP8, LU-Z.....So. Orkney Is.	9K3, 8Z5.....Kuwait/Saudi Arabia Neutral Zone
KC4.....Navassa Island	VP8, LU-Z.....So. Sandwich Is.	9L1, ZD1.....Sierra Leone
KC6.....Eastern Caroline Is.	VP8, LU-Z, CE9AN-AZ.....So. Shetland Is.	*9M2.....Malaya
KC6.....Western Caroline Is.	VP9.....Bermuda Islands	*9M2, 4.....West Malaysia
KG1 (See 8X)	VP9.....Zanzibar	9M4 (See VS1)
KG4.....Guantanamo Bay	VQ1 (See 9J2)	*9M6, 8.....East Malaysia
KG6.....Guam	VQ3 (See 5H3)	9N1.....Nepal
KG61, KA1.....Bonin & Volcano Islands	VQ4 (See 5Z4)	9Q5, QQ5, 0.....Rep. of the Congo
KG61, KA1.....Marcus Island	VQ5 (See 5X5)	*9S4.....Saar
KG6R, S, T.....Mariana Islands	*VQ6.....British Somaliland	*9U5.....Burundi
KH6.....Hawaiian Islands	VQ8.....Agalega & St. Brandon	*9U5.....Ruanda-Urundi
KH6.....Kure Island	VQ8.....Mauritius	9V1 (See VS1)
	VQ9.....Rodriguez Island	*9X5.....Rwanda
		9Y4, VP4.....Trinidad & Tobago
		*.....Geyser Reef

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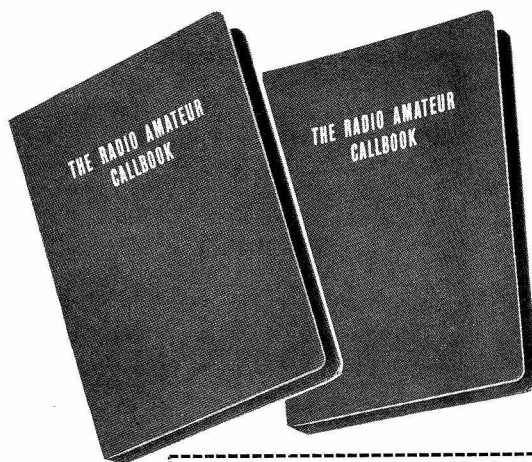
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AC3	Sikkim.....	1	K,W	United States of America (48 states)...	280,482	VR1	British Phoenix, Ellice, Gilbert & Ocean Is.	5	
AP	Bangladesh.....	7	KA	U. S. Personnel in Japan.....	176	VR2	Fiji Is.....	18	
AP	Pakistan.....	29	KB6	Baker, Canton, Enderbury, Howland & Phoenix Is.....	4	VR4	Solomon Is.....	10	
A2	Botswana.....	20				VR6	Pitcairn Is.....	1	
A35	Tonga.....	4	KC4	Navassa Is.....	1	VS5	Brunei.....	13	
A51	Bhutan.....	1	KC4AA,US	Antarctica.....	17	VS6	Hong Kong.....	45	
			KC6	Caroline Is.....	36	VU	India.....	617	
BV2	Taiwan (Formosa).....	2	KG4	Guantanamo Bay, Cuba.....	28				
			KG6	Mariana Is.....	138	W,K	United States of America (See K,W).....		
CE	Chile.....	2,511	KH6	Hawaii.....	1,323				
CE9	South Shetland Is, Graham Land.....	26	KJ6	Johnston Is.....	9	XE,XF	Mexico.....	2,044	
CE0A	Easter Is.....	11	KL7	Alaska.....	1,045	XE1 -	1,016		
CE0Z	Juan Fernandez Is.....	11	KM6	Midway Is.....	12	XE2 -	921		
CM,C0	Cuba.....	412	KP4	Puerto Rico.....	870	XE3 -	107		
CN	Morocco.....	115	KP6	Jarvis & Palmyra Is.....	6	XT2	Upper Volta.....	4	
CP	Bolivia.....	554	KS4	Swan Is.....	6	XU	Cambodia/Khmer Republic.....	2	
CR3	Portuguese Guinea.....	3	KS6	American Samoa.....	55	XW8	Laos.....	38	
CR4	Cape Verde Is.....	24	KV4	Virgin Is.....	108	XZ	Burma.....	16	
CR5	Sao Tome & Principe Is.....	2	KW6	Wake Is.....	18				
CR6	Angola.....	344	KX6	Marshall Is.....	52	YA	Afghanistan.....	19	
CR7	Mozambique.....	236	KZ5	Canal Zone.....	209	YB,YC,YD	Indonesia.....	1,083	
CR8	Timor Is.....	2				YK	Syria.....	11	
CR9	Macao.....	1	LA,LF,LG,LJ	Norway.....	3,316	YN	Nicaragua.....	382	
CT1	Portugal.....	457	LU	Argentina.....	19,222	Y0	Romania.....	1,223	
CT2	Azores Is.....	22	LX	Luxembourg.....	108	Y5	El Salvador.....	240	
CT3	Madeira Is.....	24	LZ	Bulgaria.....	586	YU	Yugoslavia.....	2,046	
CX	Uruguay.....	3,142				YV	Venezuela.....	5,552	
C21	Republic of Nauru.....	5	M1	San Marino.....	4				
C31	Andorra.....	61	MP4B	Bahrain Is.....	8	ZB2	Gibraltar.....	20	
			MP4D	Das Is.....	22	ZC4	Cyprus.....	23	
DA,B,C,F,J,K,L	West German Federal Republic.....	20,380	MP4M	Oman.....	16	ZD3	Gambia.....	6	
DM	East German Democratic Republic.....	2,977	MP4T	Trucial States.....	86	ZD7	Saint Helena.....	2	
DU	Philippines.....	292				ZD8	Ascension Is.....	29	
			OA	Peru.....	1,318	ZD9	Tristan da Cunha & Gough Is.....	3	
EA	Spain.....	1,365	OD5	Lebanon.....	169	ZE	Rhodesia.....	181	
EA6	Balearic Is.....	30	OE	Austria.....	1,531	ZF1	Cayman Is.....	30	
EA8	Canary Is.....	175	OH	Finland.....	2,336	ZK1	Cook Is.....	13	
EA9	Spanish Sahara, Ifni, Ceuta y Melilla.....	16	OH0	Aland Is.....	17	ZK2	Niue Is.....	2	
EI	Ireland.....	352	0J0,0H0M	Market Reef.....	1	ZL	New Zealand.....	4,641	
EL,5L	Liberia.....	161	OK,0L	Czechoslovakia.....	2,588	ZP	Paraguay.....	319	
EP	Iran.....	36	ON	Belgium.....	1,429	ZS	South Africa.....	2,536	
ET3	Ethiopia.....	16	OX	Greenland.....	90	ZS3	South-West Africa.....	66	
			OY	Faeroes Is.....	79				
F	France.....	6,490	OZ	Denmark.....	3,453	3A	Monaco.....	23	
FB8	Amsterdam, St. Paul, Crozet, Kerguelen, Tromelin Is.....	4	PA,PE,PI	Netherlands.....	2,322	3B8	Mauritius Is.....	34	
FG7	Guadeloupe.....	29	PJ	Netherlands Antilles - PJ2 - Curacao.....	40	3D6	Swaziland.....	15	
FH8	Comoro Is.....	4		PJ3 - Aruba.....	26	3V8	Tunisia.....	2	
FK8	New Caledonia.....	25		PJ4 - Bonaire.....	4	4S7	Sri Lanka (Ceylon).....	55	
FL8	French Somaliland.....	22		PJ5 - St. Eustatius.....	1	4U	United Nations, Geneva.....	1	
FM7	Martinique.....	40		PJ6 - Saba Is.....	1	4W1	Yemen.....	9	
F08	French Polynesia.....	54		PJ7 - Sint Maarten.....	11	4X4,4Z4	Israel.....	546	
FP8	St. Pierre & Miquelon Is.....	8	PY	Brazil.....	13,144	5A	Libya.....	33	
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* From the Winter 1972-73 Radio Amateur Callbook Magazines.

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DX OPERATING CODE

(For W/VE Amateurs)

Some amateur DXers have caused considerable confusion and QRM in their efforts to work DX stations. The points below, if observed by all W/VE amateurs, will help make DX more enjoyable for all.

1. Call DX only after he calls CQ, QRZ? or signs SK, or 'phone equivalents thereof. Make your calls short.
2. Do not call a DX station:
 - a. On the frequency of the station he is calling until you are sure the QSO is over (SK).
 - b. Because you hear someone else calling him.
 - c. When he signs KN, AR or CL.
 - d. Exactly on his frequency.
 - e. After he calls a directional CQ, unless of course you are in the right direction or area.
3. Keep within frequency band limits. Some DX stations can get away with working outside, but you cannot.
4. Observe calling instructions given by DX stations.
Example: "15U" means "call 15 kc. up from my frequency". "15D" means down, etc.
5. Give honest reports. Many DX stations depend on W/VE reports for adjustment of station and equipment.
6. Keep your signal clean. Key clicks, ripple, feedback or splatter give you a bad reputation and may get you a citation from FCC.
7. Listen and call the station you want. Calling CQ DX is not the best assurance that the rare DX will reply.
8. When there are several W or VE stations waiting, avoid asking DX to "listen for a friend". Also avoid engaging him in a rag chew against his wishes.

(For Overseas Amateurs)

To all overseas amateur stations:

In their eagerness to work you, many W and VE amateurs resort to practices which cause confusion and QRM. Most of this is good-intentioned but ill-advised; some of it is intentional and selfish. The key to the cessation of unethical DX operating practices is in your hands. We believe that your adoption of certain operating habits will increase your enjoyment of amateur radio and that of amateurs on this side who are eager to work you. We recommend your adoption of the following principles:

1. Do not answer calls on your own frequency.
2. Answer calls from W/VE stations only when their signals are of good quality.
3. Refuse to answer calls from other stations when you are already in contact with someone, and do not acknowledge calls from amateurs who indicate they wish to be "next".
4. Give everybody a break. When many W/VE amateurs are patiently and quietly waiting to work you, avoid complying with requests to "listen for a friend".
5. Tell listeners where to call you by indicating how many kilocycles up (U) or down (D) from your frequency you are listening.
Examples: c.w. - "CQ DX CQ DX CQ DX 15U DE AC4YN AC4YN AC4YN 15U K"; 'phone - "Answer 15 kilocycles up from my frequency".
6. Use the ARRL-recommended ending signals, especially KN, to indicate to impatient listeners the status of the QSO. (KN means "Go ahead (specific station), all others keep out".
7. Let it be known that you avoid working amateurs who are constant violators of the above principles.

FEDERAL COMMUNICATIONS COMMISSION EXAMINATION POINTS

Examinations for commercial and amateur radio operator licenses are conducted at the following F.C.C. field offices on the days designated by the Engineer in Charge of each office. Specific dates should be obtained from the Engineer in Charge.

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SPECIAL ARRL QN SIGNALS FOR NET USE

QNA*	Answer in prearranged order.
QNB*	Act as relay Between and
QNC	All net stations Copy. I have a message for all net stations.
QND*	Net is Directed (controlled by net control station).
QNE*	Entire net please stand by.
QNF	Net is Free (not controlled).
QNG	Take over as net control station.
QNH	Your net frequency is High.
QNI	Net stations report In.* I am reporting into the net.
QNJ	Can you copy me? Can you copy ?
QNK*	Transmit messages for to
QNL	Your net frequency is Low.
QNM*	You are QRMing the net. Please stand by.
QNN	Net control station is * What station has net control?
QNO	Station is leaving the net.
QNP	Unable to copy you (or).
QNQ*	Move frequency to . . . and wait for . . . to finish handling traffic. Then send him traffic for
QNR*	Answer . . . and Relay (or Receive) traffic.
QNS	Following Stations are in the net.* (Follow with list). Request list of stations in the net.
QNT	Leaving net Temporarily (or for . . . minutes).
QNU*	The net has traffic for YOU. Stand by.
QNV*	Establish contact with on this frequency. If successful, move to . . . and send him traffic for . . .
QNW	How do I route messages for ?
QNX	You are excused from the net.* Request to be excused from the net.
QNY*	Shift to another frequency (or to . . . kc.) to clear traffic with
QNZ	Zero beat your signal with mine.

*For use only by Net Control Station

Notes on the Use of QN Signals

- The QN signals listed above are special ARRL signals for use in amateur c.w. nets only. Other meanings that may be used in other services do not apply.
- Some QN signals are for use by net control stations only; these are marked with an asterisk (*). Others have slightly different meanings when used by the NCS and net stations; in this case, the meaning when used by the NCS is marked with an asterisk (*).
- Some QN signals have two meanings, the difference depending on how or by whom used. Examples: (a) QNC, when used as a preface to transmission of a message, carries its first meaning; when used by a station reporting into the net (e.g., W9NCS DE W9NET QNI QNC), it carries its second meaning. (b) QNI, when used by the NCS, is a request for stations to report in; when used by a net station, it means that this station is reporting in. (c) QNJ, when used alone, carries its first meaning; when followed by a call, it carries the second meaning.
- QN signals are never followed by a question mark, even though the meaning may be interrogatory.
- Do not use QN signals on phone nets. Say it with words.
- Use QN signals in nets only. They are not for use in casual amateur conversation.
- Make frequent use of standard international "Q" signals in traffic nets, for meanings not covered by QN signals. Examples: QRU, QRV, QSV, QTA, QTB, QTX, etc.

ARRL Communications Department

ARRL Adopted ICAO Phonetic Alphabet

(International Civil
Aviation Organization)

A	ALFA
B	BRAVO
C	CHARLIE
D	DELTA
E	ECHO
F	FOXTROT
G	GOLF
H	HOTEL
I	INDIA
J	JULIETT
K	KILO
L	LIMA
M	MIKE
N	NOVEMBER
O	OSCAR
P	PAPA
Q	QUEBEC
R	ROMEO
S	SIERRA
T	TANGO
U	UNIFORM
V	VICTOR
W	WHISKEY
X	X-RAY
Y	YANKEE
Z	ZULU

ON GOOD PHONE OPERATING

- Listen much . . . with care.** Avoid distractions in your operating room. Tune the band well after each call.
- Time your calls; monitor your own frequency.** Call only when a station is free.
- Make short calls, with breaks to listen.** Speak clearly, at a steady, modest rate. Three short calls are better than one long one.
- Use push-to-talk technique . . . speak near the mike.** Watch the modulation indicator. Keep local background noise at a minimum.
- Make notes. Avoid missing points for comment.** Jot down topics to avoid repeats.
- Talk in connected thoughts and phrases.** Notes will help avoid mixing up subjects. Push-to-talk technique will keep brother amateurs from calling you a monologist.
- Speak naturally. QSOs need not be cut and dried. Make them interesting.** Avoid exhibitionism. Use proper operating form to promote efficiency in communication and add respect and prestige for your station.

Use of this standard list is recommended by ARRL. Haphazard selection of words often results in confusion. A degree of uniformity in use of phonetic words reflects favorably on your individual operating, and on the whole amateur service.

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TELEGRAPHERS' ABBREVIATIONS IN CURRENT USE

— denotes short space, as in American Morse o, $\text{e}\bar{\text{e}}$; c, $\text{t}\bar{\text{e}}$; &, $\text{e}\bar{\text{s}}$.
 — denotes letters sent together, as in $\bar{\text{a}}\bar{\text{r}}$, sent $\text{a}\bar{\text{r}}$.

- A -

aa	all after
ab	all before
abl	able
abt	about
ads, adr	address
adv	advise
af	Africa
aftmn	afternoon
agn	again
ahd	ahead
alng	along
am	amplitude modulation
ani	any
anr	another
ant	antenna
app	appreciate
$\bar{\text{a}}\bar{\text{r}}$	end of message
$\bar{\text{a}}\bar{\text{s}}, \bar{\text{a}}\bar{\text{s}}\ \text{m}$	wait, wait a minute
$\bar{\text{a}}\bar{\text{u}}$	fractions follow
aw	auf wiedersehn (Ger), see you later

- B -

b	be
b4	before
balun	balanced-to-unbalanced
bc, bcl	broadcast, broadcast listener
bcnu	be seeing you
bd	buenos dias (Sp), bad
bda	birthday
$\bar{\text{b}}\bar{\text{e}}\bar{\text{e}}, \bar{\text{b}}\bar{\text{o}}, \bar{\text{b}}\bar{\text{h}}$	both, as in "u5 bee", up both (Morse)
bfo	beat frequency oscillator
bjr	bon jour (Fr)
bk, bkg	back, break, black, book, breaking
bkr	breaker, circuit-breaker
bn	been, brown, between, buenas noches (Sp)
bq	answer to rq (request)
brg, brng	bearing, heading
bsr	bon soir (Fr)
btr	better
buk	book

- C -

c	yes
cd	card, could
cd, cnd, cndt	could, couldn't
cfm, cfm	confirm, confirming
ck	check
ckt, cct	circuit
cl, clg	call, calling, closed
clbk	callbook
clix	clicks
clr	clear
cndx, cndx, cdx	conditions
cnt, cnti, cnty	count, county
cnvn	convention
coz, cos, cuz, becuz	because
cpi	copy
cq	general call to all stations
cs	call sign, call letters
cua, cuagn	see you again
cul	see you later
cum, cm, cmg	come, coming
cupla	a couple of
cw	continuous wave, manual keying

- D -

da	day
dbl	double
dcn	direction
dct	direct
de	from
df	direction finder
diff, diff	difference
dlr, dld	dealer, deliver, delivered
dn, d	down (in frequency)
dnt, dmi	do not, don't mention it
dpe	dope, information
dr	dear
ds	thanks, danke schon (Ger)
dsnt	does not
dsw	goodbye, do svidaniya (Russian)
dunno	don't know
dx	distance, or rare station
dxpdx	dx expedition

- E -

$\bar{\text{e}}\bar{\text{m}}$	old man
eh	?
el, els	antenna element(s)
em	them
eni, enibdi, enihw	any, anybody, anyhow
ere	here
es, es	and (from Morse "&", sent ...)
eta	estimated time of arrival
etd	estimated time of departure
eu	Europe

- F -

fb, vfb	fine business, good (enthusiastic approval)
fd	field day, feed, food
fer	for
fiver	QSA-5
fld	field, filed
flr	floor
fm, frm	from, frequency modulation
fnd	friend, find, found
fni	funny
foxes	teletypewriter test tapes
freq, fq	frequency
fwd	forward
fyi	for your information

- G -

ga	good afternoon, go ahead
gb	good bye
gd	good day, good
ges, gess	guess
gg	going
gl	good luck

- G - (Cont.)

gld	glad
gn, gng	gone, green, going
gnd	ground
gotta	got to, have to, must
gpr	ground plane, group (word)
grs	groups (as in msg code groups)
gud	good
gtgs	greetings
gv, gvg	give, giving

- H -

hd, hrd	had, hard, heard
hdg	heading, antenna azimuth
hed	he would
hi	high, laughter, (sometimes !)
hlo	hello
hlv	hasta la vista (Sp), see you later
hpe, hpg	hope, hoping
hpi	happy
hpn, wa hpn	happen, what happened
hq, hqtrs	headquarters
hr, hrg, hrs	here, hear, hour, hearing, here is, hours
hv, hvnt, hvg	have, haven't, having
hvi	heavy
hw, hws	how? how is?

- I -

i?	ready? here goes the tape
id	I would
$\bar{\text{i}}\bar{\text{e}}$	clear? (response: i-go, e-wait)
im	I'm, him, intermodulation
$\bar{\text{i}}\bar{\text{m}}\bar{\text{i}}$?
info	information
irpt	I repeat

- K -

k	go ahead, end of transmission
ka	beginning of transmission (formal)
klix	clicks
klvb	que (ke) le vaya bien (Sp) "That it goes well with you"
kn	go ahead, but only the station(s) called, I will answer no other calls, known
knw	know

- L -

lkg	looking
ll	landline, telephone or telegraph
lng	long
lotsa	lots of
lp	long path (long way around earth)
lsn	listen
ltr	letter, later
lv, lvg	leave, leaving
lw	long wave, "lone wolf" (independent DXer)

- M -

mag, rag	magazine
mci, mci bcp	merci, merci beaucoup (Fr), thanks
mgr	manager
mi	my
mil, mill, ma	milliampere, typewriter
min	minute, minimum
mk	mark (opposite of space)
ml, mlg	mail, mailing
mng	morning, meaning
mni	many
mnl	manual
mo	moment
msg	message

- N -

n	no
nd	nothing doing
ng	no good
nil	nothing
nir	lazy "nil"
nm	nothing more, no more
nn	noon
no	know
nr	near, number
nvr	never
nw	now

- O -

ob, $\bar{\text{e}}\bar{\text{e}}\bar{\text{b}}$	old boy
oc	old chap
ok, $\bar{\text{e}}\bar{\text{e}}\bar{\text{k}}$	all correct
ol	old lady
om, $\bar{\text{e}}\bar{\text{e}}\bar{\text{m}}$	old man
op, opr	operator
opn, opg	operation, operating
ot	old timer

- P -

pa	power amplifier
pbl, pbli	probable, preamble, probably
pctcs	practices
pd	period, paid
pdv	pure dc, clean note
pkg	package, parking
plsr	please
ppgn	propagation
ppl	people
prtbl	portable
pse, pls, psd	please, pleased
psbl, psbli	possible, possibly
psn, posn	position
pt, ptd, ptg	point, part, pointed, pointing
pwr	power

- Q -

qhm	tuning from high frequency to middle of band
qif	try sending with left foot awhile
qlm	tuning from low frequency to middle of band
qlz	operator too lazy
qmh	tuning from middle frequency to high frequency
qml	tuning from middle frequency to low frequency
qmt	try mailing your tlc
qrn	man-made electrical noise
qsl	mail card confirming qso
qsl	send card after receiving mine
qst	of interest to all amateurs

- R -

r	received
rac	rectified ac
rc	rag chew
rcd, recd	received
rcr, recr, rcvr, rx	receiver
rd	read (copy), red
rdi, rdy	ready
rdo	radio, radio station
re	concerning
reg, regs	regular, regulations
rito	righto
rm	room
rng	running
rockbound, rockbnd	crystal controlled, no vfo
rpt	report, repeat
rq	request
rst	readability 1-5, strength 1-9, tone 1-9

- S -

sa, sez, sed, sa	say, says, said, South America
sae	self-addressed envelope
sase	self-addressed stamped envelope
sb, ssb	single sideband
sgd	signed
shd, shud, shudn't	should, shouldn't
sig, sigs	signal(s), signature
simo	simultaneously
sked	schedule
sl	see you later
sn	soon, seen, signal/noise
sp	short path (the closer great-circle path)
sri	sorry
ss	sweepstakes
ssn	season, as in "ssns gtgs"
str	station
su	I'll see you
sum	some
sumbdi	somebody
svc	service
svl	several
sw	switch, short wave
sx	dollar sign "\$"

- T -

tbl, trbl	trouble
tfc	traffic, messages
thr	there, their
tmw	tomorrow
tng	tuning, thing
tnk	thank
tnsmn	transmission
tr	transit, position, there, transmit/receive
T/R	transmit/receive
trix	tricks
tt, tts	that, that is
tu, tku, tnx, tks	thank you, thanks
tv, tvi	television, television interference
twx	telegram
tx, trans	transmitter

- U -

u, up	you, upward in frequency
ufb	vfb, very fine business (Rus)
uk	United Kingdom
ul, ud	you will, you would
undld	undelivered
unhrd	unheard
ur, urs	your, yours
ut	universal time, GMT, "Zebra" time

- V -

$\bar{\text{v}}\bar{\text{a}}$	signing off (same as sk)
vert	vertical
vfb	very fine business
vfo	variable-frequency oscillator
vjo	viejo (Sp), old man
vox	voice-operated switch
vy, vri	very
vxo	variable crystal oscillator

- W -

w, wt	watt
wa	word after
wat, watsa	what, what do you say?
wb	word before
wd	word, would
w $\bar{\text{e}}$	who?
wed	we would
wh	white
wid	with
wilco	will comply, will do
wk, wkg	week, weak, work, working, QSOing
wri	worry
wx, wea	weather

- X -

xtl	crystal
xtr, xmtr	transmitter
xq	fill, or repeat of unreceived copy

- Y -

yda	yesterday
yl, xyl	young lady, married young lady
yr	year, your

- Z -

z	Greenwich Mean Time, UT, "zebra"
zedder	New Zealander
zi	zone of the interior (continental USA)
zilch	nothing

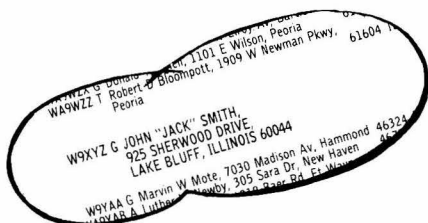
NUMBER CODE:

1 - a	6 - 6
2 - u	7 - b
3 - v	8 - d
4 - 4	9 - n
5 - e	0 - t

73

73	best wishes
88	love and kisses
99 (rare)	keep out

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QTH!**

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THE GEOGRAPHICAL CENTER OF THE

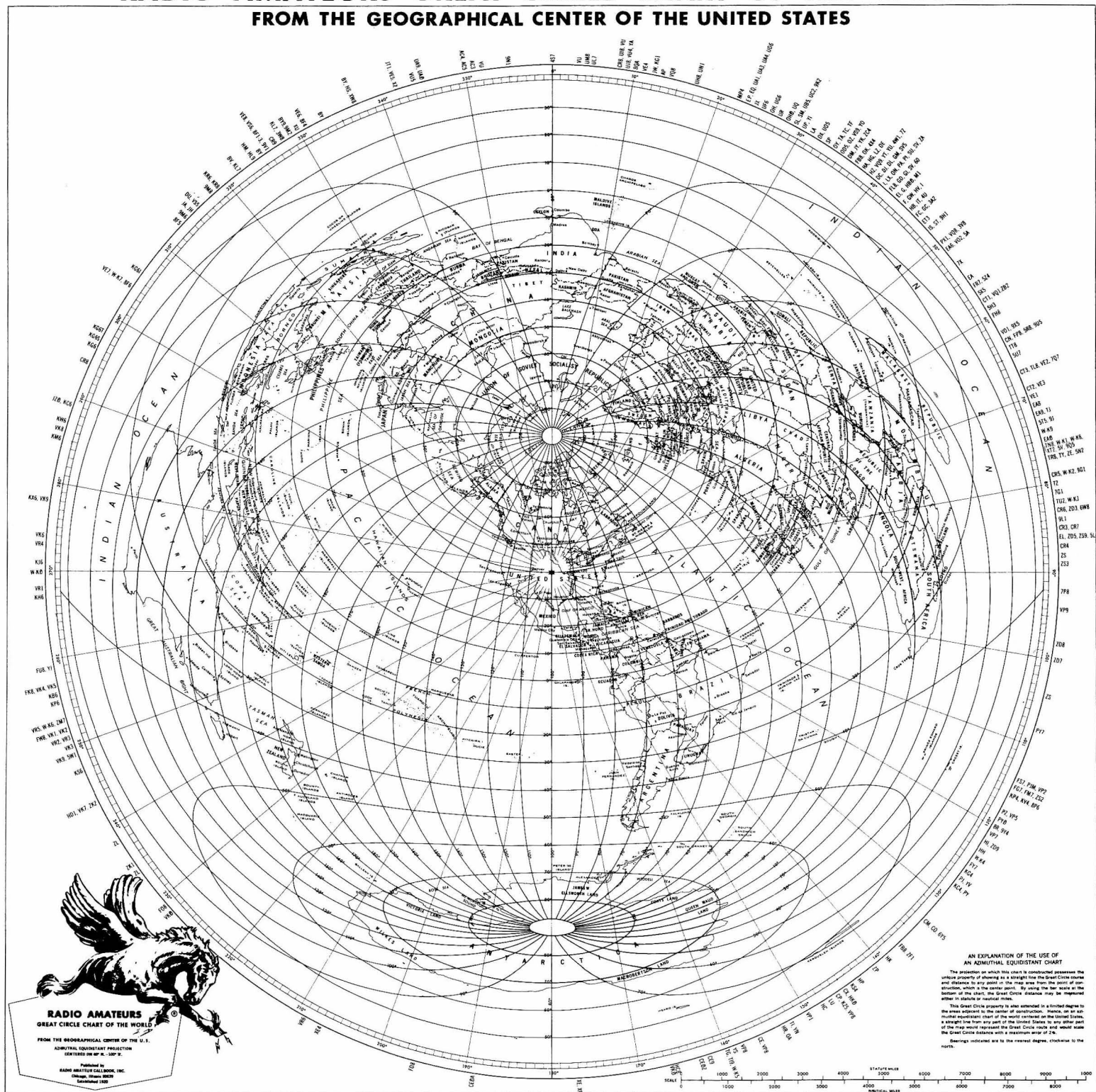
United States

The table below shows the great circle bearing in degrees and the distance in statute miles, from the point indicated above to countries throughout the world having licensed radio amateurs.

PREFIX	COUNTRY	BEARING	MILES	PREFIX	COUNTRY	BEARING	MILES	PREFIX	COUNTRY	BEARING	MILES
AZC,ZS9	BOTSWANA, MAFEKING	90	9229	KR6,8	RYUKYU IS (OKINAWA)	318	6873	VP8,LU-Z	SOUTH GEORGIA IS	146	7507
AC3	SIKKIM, GANGTOK	351	7773	KS4	SWAN IS	144	1866	VP8,LU-Z	SOUTH CRKNEY IS	155	7647
AC4	TIBET, LHASA	350	7550	KS4B,HK0	SERRANA BANK & RONCADOR CAY	140	2177	VP8,LU-Z	SOUTH SANDWICH IS	146	7980
AC5	BHUTAN	350	7764	KS6	AMERICAN SAMOA	116	5880	VP8,LU-Z	SOUTH SHETLAND IS	159	7515
AP	EAST PAKISTAN, DACCA	350	7969	KV4	VIRGIN IS, CHARLOTTE AMALIE	287	5536	VP9	BERMUDA IS, HAMILTON	95	2027
AP	WEST PAKISTAN, KARACHI	13	7872	KW6	WAKE IS	278	5925	VQ1	ZANZIBAR	58	8990
BV	TAIWAN (FORMOSA), TAIPEI	322	7228	KX6	MARSHALL IS	145	2462	VQ9	CHAGOS IS	14	10041
BY	CHINA, PEKING	333	6461	KZ5	CANAL ZONE, COLON	31	4507	VQ9	SEYCHELLES IS	38	9603
C21,VK9	REP. OF NAUURU	272	6379	LA,LF,LJ	NORWAY, OSLO	147	5846	VR1	BRITISH PHOENIX IS	266	6293
C31,PX	ANDORRA, ANDORRA	155	5388	LX	ARGENTINA, BUENOS AIRES	41	4778	VR2	GILBERT, ELLICE & OCEAN IS	264	6135
CE	CHILE, SANTIAGO	159	7496	LZ	LUXEMBOURG, LUXEMBOURG	38	5694	VR3	FJJI IS, SUVA	251	6609
CE9	S. SHETLAND IS	189	4677	MI,9A1	BULGARIA, SOFIA	43	5263	VR4	FANNING & CHRISTMAS IS	252	4424
CE0A	EAST IS	161	4752	MP4B	SAN MARINO, SAN MARINO	27	7514	VR5	SOLOMON IS	271	7157
CE0X	SAN FELIX IS	163	5217	MP4M	BAHRAIN IS	26	7627	VR6	TONGA IS, NUKULOFA	244	6403
CE0Z	JUAN FERNANDEZ	133	1586	MP4T	DAS IS	21	7817	VR6	PICTAIRN IS	209	4898
CM,CO	CUBA, HAVANA	62	4863	OA	MUSCAT & OMAN, MASQAT	25	7713	V55	BRUNEI	316	8616
CN2,8,9	MOROCCO, CASABLANCA	145	4396	OD5	QATAR	153	3897	V56	HONG KONG	326	7625
CP	BOLIVIA, LA PAZ	84	5383	OE	TRUCIAL STATES	36	6579	VS9A,P,S	SOUTH YEMEN, ADEN	39	8148
CR3	PORTUGUESE GUINEA, BISSAU	78	7079	OH	PERU, LIMA	38	5210	VS9K	KAMARU IS	40	7961
CR4	CAPE VERDE IS	83	8177	OH	LEBANON, BEIRUT	28	4740	VU	INDIA, CALCUTTA	352	8055
CR5	PRINCIPE & SAO TOME IS	85	9599	OH0	AUSTRIA, VIENNA	38	5048	VU4	LACCAIVE IS	9	8957
CR6	ANGOLA, NOVA LISBOA	294	8899	OK,OL	FINLAND, HELSINKI	26	4659	VU5	ANDAMAN & NICOBAR IS	344	8750
CR7	MOZAMBIQUE, LOURENCO MARQUES	326	7625	ON	ALAND IS	28	4740	XE,XF,4A	MEXICO, MEXICO CITY	177	1461
CR8	PORTUGUESE TIMOR	58	4621	OX,XP	CZECHOSLOVAKIA, PRAGUE	33	5231	XE4	REVILLAGIGEDO IS	207	1597
CR9	MACAO	67	3764	OY	BELGIUM, BRUSSELS	34	3921	XT2,FF8	UPPER VOLTA, GUAGADOUGOU	76	6112
CT1	PORTUGAL, LISBON	67	4473	OZ	GREENLAND, GODTHAB	40	4659	XU	CAMBODIA, PHNUM PENH	330	8503
CT2	AZORES IS	145	5906	PA,PE,PI	FAEROES IS, TORSHAVN	127	2714	XW8	LAOS, VIENTIANE	335	8165
CT3	MADEIRA IS	36	4876	PJ2	DENMARK, COPENHAGEN	127	2618	XZ2	BURMA, RANGOON	342	8367
CU	URUGUAY, MONTEVIDEO	316	7813	PJ3,9	NETHERLANDS, AMSTERDAM	126	2756	YA	AFGHANISTAN, KANDAHAR	13	7373
EA	SPAIN, MADRID	54	4801	PJ4,9	NETH. ANTILLES, CURACAO	115	2731	YB-D,8F,PK	INDONESIA, DJAKARTA	317	9554
EA6	BALCARIS IS	52	5139	PJ6	NETH. ANTILLES, AROBA	114	2684	YI	IRAQ, BAGHDAD	30	6898
EA8	CANARY IS	71	4765	PJ7	NETH. ANTILLES, BONAIRE	114	2684	YJ,FU8	NEW HEBRIDES, VILA	257	7117
EA9	CEUTA & MELILLA	58	4919	PY	NETH. ANTILLES, ST. EUSTATIUS	114	2684	YK	SYRIA, DAMASCUS	36	6668
EA9	SPANISH SAHARA(RIO DE ORO)	73	5029	PY7	NETH. ANTILLES, SABA	114	2684	YN,HT	NICARAGUA, MANAGUA	152	2126
EI	IRELAND, DUBLIN	43	4234	PY8	BRAZIL, BRASILIA	108	5266	YO	ROMANIA, BUCHAREST	36	5736
EL,5L	LIBERIA, MONROVIA	71	7050	PZ	FERNANDO DE NORONHA	118	3654	YU,YT	EL SALVADOR, SAN SALVADOR	156	1927
EP	IRAN, TEHRAN	24	6939	SK,SL,SM	TRINIDADE & MARTIN VAZ IS	29	4738	YV	YUGOSLAVIA, BELGRADE	38	5491
ET3	ETHIOPIA, ADDIS ABABA	44	8166	SP,3Z	SURINAM, PARAMARIBO	33	5165	YV0	VENEZUELA, CARACAS	127	2907
F	FRANCE, PARIS	44	4677	SU	SWEDEN, STOCKHOLM	43	5165	ZA	ALBANIA, TIRANA	41	5696
FB8Z	AMSTERDAM & ST. PAUL IS	36	12273	SV	POLAND, WARSAW	77	5737	ZB2	GBRALTAR	53	5357
FB8W	CROZET IS	115	10991	SV	SUDAN, KHARTOUM	41	6676	ZC4,5B4	CYPRUS, NICOSIA	37	6458
FB8X	KERGUELEN IS	143	11635	SV	EGYPT, CAIRO	41	5993	ZD3	GAMBIA, BATHURST	44	5287
FC	CORSEICA	46	5244	SV5	GREECE, ATHENS	42	6189	ZD5,ZS7	SWAZILAND, MBABANE	86	9494
FG7	GUADELOUPE IS	115	2827	TA,TC	CRETE	40	6204	ZD7	ROMANIA, BUCHAREST	36	5736
FG8,FB8	MOZAMBIQUE, NOUEMA	60	9482	TG	DODECANESE IS	34	6171	ZD8	EL SALVADOR, SAN SALVADOR	156	1927
FL8	FRENCH SOMALILAND, DJIBOUTI	255	7389	TI	TURKEY, ANKARA	34	3431	ZD9	YUGOSLAVIA, BELGRADE	38	5491
FM7	MARTINIQUE	42	8139	TI9	ICELAND, REYKJAVIK	34	3431	ZE	VENEZUELA, CARACAS	127	2907
F08	FRENCH POLYNESIA, TAHITI	115	2923	TI9	GUATEMALA, GUATEMALA CITY	158	1840	ZF1,VP5	AFGHANISTAN, KANDAHAR	13	7373
F08	CLIPPERTON IS	228	5104	TJ,FE8	COSTA RICA, SAN JOSE	150	2305	ZK1	INDONESIA, DJAKARTA	317	9554
F08	ST. PIERRE & MIQUELON IS	197	2153	TL8,FQ8	COCOS IS	156	2582	ZK2	IRAQ, BAGHDAD	30	6898
F08	ST. PIERRE & MIQUELON IS	63	2231	TL8,FQ8	CAMELOON, YAOUNDE	72	7195	ZL	NEW ZEALAND, AUCKLAND	238	7572
FR7	GLORIOSO IS	54	9606	TR8,FQ8	CENTRAL AFRICAN REP., BANGUI	67	7542	ZL	AUCKLAND & CAMPBELL IS	228	8455
FR7	JUAN DE NOVA	65	9729	TR8,FQ8	CONGO REPUBLIC, BRAZZAVILLE	76	7721	ZL	CHATHAM IS	228	7528
FR7	REUNION IS, SAINT-DENIS	55	10477	TU2,FF4	GABON REPUBLIC, LIBREVILLE	77	7228	ZL	KERMADEC IS	239	6955
FR7	TAHITI	50	10170	TY,FF8	CHAD REPUBLIC, FORT-LAMY	64	6957	ZM7	TKISTAN CA CUNHA & GOUGH IS	121	7716
FR7	ST. MARTIN IS	114	2684	TY,FF8	IVORY COAST, ABIDJAN	82	6324	ZP	RHODESIA, SALISBURY	77	9174
FU8,YJ	NEW HEBRIDES, VILA	257	7117	TY,FF8	DAHOMEY REP., PORTO NOVO	77	6643	ZS1,2,4-6	AYMAN IS	135	1886
FY8	MALLIS & FUTUNA IS	251	6176	UA,K,V,W	MALI REPUBLIC, BAMAKO	79	5758	ZS2	COOK IS	234	5582
FW7	FRENCH GUIANA, CAYENNE	36	8955	UA2,UK	EUROPEAN RUSS.S.F.S.R., MOSCOW	22	5364	ZS2	MANHIKI IS	242	5159
G	ENGLAND, LONDON	43	4524	UA2,UK	KALININGRADSK	4	4022	ZK1	NIUHIKI IS	243	6071
GC	GUERNSEY & DEPENDENCIES	46	4527	UB,K,T5,Y	ASIATIC RUSSIAN S.F.S.R.	358	5870	ZK2	NEW ZEALAND, AUCKLAND	238	7572
GC	JERSEY IS	46	4527	UC2,UK	UKRAINIAN S.S.R.	29	5630	ZL	AUCKLAND & CAMPBELL IS	228	8455
GD	ISLE OF MAN, DOUGLAS	42	4271	UD6,UK	WHITE RUSSIAN S.S.R.	28	5250	ZL	CHATHAM IS	228	7528
GI	NORTHERN IRELAND, BELFAST	41	4167	UD6,UK	AZERBAIDZHAN S.S.R.	25	6535	ZL	KERMADEC IS	239	6955
GM	SCOTLAND, GLASGOW	40	4202	UD6,UK	GEORGIAN S.S.R.	26	6342	ZM7	TKISTAN CA CUNHA & GOUGH IS	121	7716
GN	WALES, CARDIFF	44	4415	UD6,UK	ARMENIAN S.S.R.	27	6442	ZP	PARAGUAY, ASUNCION	141	5256
HA,HG	HUNGARY, BUDAPEST	38	5357	UH8,UK	TURKISH S.S.R.	15	6770	ZS1,2,4-6	SCOTCH AFRICA, CAPE TOWN	104	9076
HB	SWITZERLAND, BERN	43	4944	UI8,UK	UZBEK S.S.R.	12	6752	ZS2	PRINCE EDWARD & MARION IS	117	10323
HB0,HE	LIECHTENSTEIN, VADUZ	42	5052	UJ8,UK	KAZAKH S.S.R.	7	6950	ZS3	S.W. AFRICA (NAMIBIA), WINDHOEK	92	8641
HC	ECUADOR, QUITO	148	3104	UL7,UK	KIRGHIZ S.S.R.	4	6832	SA	MCNAC	46	5077
HC8	GALAPAGOS IS	165	2846	UM8,UK	MDGLAVIAN S.S.R.	32	5660	SB6,VQ8	AGALEGA IS	40	9930
HM	HAITI, PORT-AU-PRINCE	123	2216	UP2,UK	LITHUANIAN S.S.R.	29	5012	SB8,VQ8	MAURITIUS IS	49	10550
HI	DOMINICAN REP., SANTO DOMINGO	122	2356	UQ2,UK	LAZAVIAN S.S.R.	28	5045	SB9,VQ8	RODRIGUEZ IS	41	10788
HK	COLOMBIA, BOGOTA	140	2981	UK2,UK	ESTONIAN S.S.R.	26	4911	SC,EA0	EQUATORIAL GUINEA, BATA	75	7187
HK0	MALPELO IS	151	2741	VE1	CANADA, HALIFAX	67	9155	SV8	TUNISIA, UNIS	50	5517
HK0	SAN ANDRES & PROVIDENCIA IS	143	2205	VE2	CANADA, MONTREAL	64	1374	SV8,XV5	S. VIETNAM, SAIGON	328	8512
HM,HL9	KOREA, SEOUL	325	6280	VE3	CANADA, TORONTO	69	1113	457	CEYLON, COLOMBO	0	9193
HP	PANAMA, PANAMA	145	2482	VE4	CANADA, WINNIPEG	11	701	4W1,3	UNITED NATIONS, GENEVA	45	4951
HR	HONDURAS, TEGUCIGALPA	153	1972	VE5	CANADA, SASKATOON	341	886	4X4,4Z4	YEMEN, SANA	39	7995
HS	THAILAND, BANGKOK	336	8470	VE6	CANADA, EDMONTON	332	1134	5A	ISRAEL, TEL AVIV	37	6695
HV	VATICAN CITY	45	5358	VE7	CANADA, VANCOUVER	306	1279	5B3,VQ3	LIBYA, TRIPOLI	51	5832
IZ,7Z	SAUDI ARABIA, MECCA	39	7444	VE8	CANADA, WHITEHORSE	326	2063	5N2,ZD2	TANGANYIKA, DAR-ES-SALAAM	59	9042
I,IR0	ITALY, RCME	45	5358	VK,AX	AUSTRALIA, BRISBANE	258	8257	5R8,FB8	NIGERIA, LAGOS	77	6643
IT	SARDINIA	48	5337	VK2	TASMANIA IS, HOBART	250	8138	5S5,FF7	MAURITANIA, NOUAKCHOTT	80	5126
JA,JH,JR	JAPAN, TOKYO	315	5947	VK7	PAPUA & NEW GUINEA TERR.	243	9066	5U7,FF8	NIGER, NIAMEY	72	6224
JD	OGASAWARA IS (BONIN)	308	6330	VK9A-MZ	NORFOLK IS	278	7834	5V,FD	TOGO, LOME	78	6539
JD1	MINAMI-TORI-SHIMA IS (MARCUS)	298	5946	VK9	CHRISTMAS IS	248	7577	5W1,ZM6	WESTERN SAMOA, APIA	248	5929
JD1	MONGOLIA, ULAN BATOR	342	6134	VK9Y	COCOS IS	327	10245	5X5,VQ5	UGANDA, KAMPALA	60	8359
JX,LA/P	JAN MAYEN IS	22	3617	VK0	HEARD IS	162	11501	5Z4,VQ4	KENYA, NAIROBI	56	8636
JY,LA/P	JORDAN, AMMAN	36	6726	VK0	MARSHALL IS	145	2462	601,2,6	SENEGAL REP., DAKAR	83	5201
KB6	BAKER, CANTON, & OTHER IS	261	5482	VK1	NEWFOUNDLAND, ST. JOHNS	45	2113	6Y5,VP5	JAMAICA, KINGSTON	131	2058
KC4	NAVASSA IS	128	2139	VK2	LARADDER, HOPEDALE	152	1755	7G1,3X	REP. OF GUINEA, CONAKRY	85	5576
KC6	CAROLINE IS	291	7044	VP2A	ANTIGUA, SAINT JOHNS	114	2780	7P8,Z58	LESOTHO, MASERU	91	9387
KG4	GUANTANAMO BAY, CUBA	126	2034	VP2B	ANGUILLA	115	2923	7T7,ZD6	MALAWI, BLANTYRE	71	9289
KG6	GUAM	298	6750	VP2C	GRENADA & DEPENDENCIES	114	2684	7X,FA	ALGERIA, ALGIERS	53	5227
KG6I	BOCNIN IS (OGASAWARA)	308	6330	VP2D	ST. KITTS, NEVIS	115	2731	7Z,HZ	SAUDI ARABIA, MECCA	39	7504
KG6I	MARCUS IS (MINAMI-TORI-SHIMA)	298	5946	VP2E	ST. LUCIA	116	2972	8P6,VP6	BRIBADIOS IS, BRIDGETOWN	116	3068
KG6R,S,T	MARIANA IS (SAIPAN)	297	6753	VP2F	MONTserrat	114	2780	8Q4,VS9M	MALDIVES IS	10	9437
KH6	HAWAII, HONOLULU (KURE IS)	267	3624	VP2G	ST. VINCENT & DEPENDENCIES	117	3021	8R,VP3	GUAYANA, GEORGETOWN	120	3463
KJ6	JOHNSTON IS	271	4421	VP2H	BRITISH VIRGIN IS	115	2636	8Z4	SAUDI ARABIA/IRAQ NEUTRAL ZONE	31	7171
KL7	ALASKA, ANCHORAGE	322	2536	VP2I	TURKS & CAICOS IS	119	2068	9C1,ZD4	GHANA, ACCRA	79	6487
KM6	MIDWAY IS	285	4351	VP2J	BAHAMA IS, NASSAU	121	1695	9H1,ZB1	MALTA, VALLETTA	48	5764
KP4	PUERTO RICO, SAN JUAN	117	2541	VP2K	FALKLAND IS	156	6833	9I,9J,VQ2	ZAMBIA, LUSAKA	76	8889
KP6	JARVIS & PALMYRA IS	250	4665	VP2L				9K2	KUWAIT, AL-KUWAIT	29	7250

RADIO AMATEURS GREAT CIRCLE CHART OF THE WORLD

FROM THE GEOGRAPHICAL CENTER OF THE UNITED STATES



This map available in 4 colors, size 30" x 25".

INTERNATIONAL POSTAL RATES

The following postal rates cover QSL cards, first class letters and air mail letters from the United States to Countries outside of the United States and Possessions.

FIRST CLASS RATES to countries other than Canada and Mexico, 1 ounce, 15¢; over 1 to 2 ounces, 26¢; over 2 to 4 ounces, 34¢; over 4 to 8 ounces, 76¢; over 8 ounces to 1 pound, \$1.44; over 1 to 2 pounds, \$2.40; and over 2 to 4 pounds, \$3.84.

AIR MAIL RATES are the rate for each half ounce, except where indicated.

QSL CARDS and **AEROGRAMMES** (air letter sheets) may be sent to any country in the world by air mail for 15¢ (exception: to Canada and Mexico, QSL cards are 9¢ by air mail).

INTERNATIONAL REPLY COUPONS of United States issue may be purchased at United States post offices for 22¢ each. Each coupon is exchangeable at a post office in any country for a stamp or stamps representing the international postage on a single rate surface letter. The column marked "(Air) IRC" indicates the number of international reply coupons required to prepay an air mail letter of the first weight unit from the countries indicated to the United States.

These rates include all revisions up to press time of this issue.

	QSL cards	First class	Air mail	(Air) IRC		QSL cards	First class	Air mail	(Air) IRC		QSL cards	First class	Air mail	(Air) IRC
Afghanistan.....	.10	.15	.21	5	Great Britain.....	.10	.15	.21	2	Pakistan.....	.10	.15	.21	2
Aland Is. (Finland).....	.10	.15	.21	2	Greece (incl. Crete).....	.10	.15	.21	2	Panama.....	.10	.15	.17	2
Albania.....	.10	.15	.21	4	Greenland (Denmark).....	.10	.15	.21	2	Papua Territory (Australia).....	.10	.15	.21	3
Algeria.....	.10	.15	.21	2	Grenada & Grenadines.....	.10	.15	.17	4	Paraguay.....	.10	.15	.17	3
Andorra.....	.10	.15	.21	2	Guadalupe Is.....	.10	.15	.17	2	Persian Gulf Ports.....	.10	.15	.21	4
Angola (Portugal).....	.10	.15	.21	3	Guatemala.....	.10	.15	.17	2	Peru.....	.10	.15	.17	3
Argentina.....	.10	.15	.17	3	Guiana, French.....	.10	.15	.17	2	Philippines.....	.10	.15	.21	3
Ascension Is. (Great Britain).....	.10	.15	.21	3	Guinea, Portuguese.....	.10	.15	.21	2	Pitcairn Is. (Great Britain).....	.10	.15	.21	
Australia.....	.10	.15	.21	4	Guinea, Republic of.....	.10	.15	.21	2	Poland.....	.10	.15	.21	2
Austria.....	.10	.15	.21	2	Guyana.....	.10	.15	.17	4	Portugal.....	.10	.15	.21	2
Azores Is. (Portugal).....	.10	.15	.21	2										
					Haiti.....	.10	.15	.17	5	Qatar.....	.10	.15	.21	4
Bahama Is. (Great Britain).....	.10	.15	.17	2	Honduras, British.....	.10	.15	.17	2					
Balearic Is. (Spain).....	.10	.15	.21	2	Honduras, Republic of.....	.10	.15	.17	3	Reunion Is. (France).....	.10	.15	.21	2
Barbados Is. (West Indies).....	.10	.15	.17	3	Hong Kong.....	.10	.15	.21	5	Rhodesia.....	.10	.15	.21	5
Belgium.....	.10	.15	.21	2	Hungary.....	.10	.15	.21	2	Romania.....	.10	.15	.21	3
Bermuda Is.....	.10	.15	.17	2						Rwanda.....	.10	.15	.21	2
Bhutan.....	.10	.15	.21		Iceland.....	.10	.15	.21	2	Ryukyu Is.....	.10	.15	.21	
Bolivia.....	.10	.15	.17	2	India.....	.10	.15	.21	3					
Botswana.....	.10	.15	.21	5	Indonesia.....	.10	.15	.21	3	St. Helena Is. (Great Britain).....	.10	.15	.21	3
Brazil.....	.10	.15	.17	2	Iran.....	.10	.15	.21	4	St. Pierre and Miquelon Is. (France).....	.10	.15	.17	2
Brunei.....	.10	.15	.21	8	Iraq.....	.10	.15	.21	3	Samoa, Western (Great Britain).....	.10	.15	.21	4
Bulgaria.....	.10	.15	.21	3	Ireland (Eire).....	.10	.15	.21	3	Saudi Arabia.....	.10	.15	.21	3
Burma.....	.10	.15	.21	4	Israel.....	.10	.15	.21	3	Senegal.....	.10	.15	.21	2
Burundi.....	.10	.15	.21	3	Italy.....	.10	.15	.21	2	Seychelles Is. (Great Britain).....	.10	.15	.21	3
					Ivory Coast.....	.10	.15	.21	2	Sierra Leone.....	.10	.15	.21	3
Cambodia.....	.10	.15	.21	3						Solomon Is. (Great Britain).....	.10	.15	.21	5
Cameroon.....	.10	.15	.21	2	Jamaica.....	.10	.15	.17		Somalia.....	.10	.15	.21	
Canada.....	.06	.08	.11*	2	Japan.....	.10	.15	.21	2	South Africa.....	.10	.15	.21	5
Canary Is. (Spain).....	.10	.15	.21	2	Jordan.....	.10	.15	.21	3	South-West Africa (Namibia).....	.10	.15	.21	5
Cape Verde Is. (Portugal).....	.10	.15	.21	3						South Yemen.....	.10	.15	.21	5
Cayman Is. (West Indies).....	.10	.15	.17	3	Kenya.....	.10	.15	.21	4	Spain.....	.10	.15	.21	2
Central African Republic.....	.10	.15	.21	2	Korea.....	.10	.15	.21	3	Spanish West Africa.....	.10	.15	.21	2
Ceylon.....	.10	.15	.21	5	Kuwait.....	.10	.15	.21	4	Sudan.....	.10	.15	.21	3
Chad.....	.10	.15	.21	2						Surinam.....	.10	.15	.17	1
Chile.....	.10	.15	.17		Laos.....	.10	.15	.21		Swaziland.....	.10	.15	.21	5
China (Taiwan).....	.10	.15	.21	3	Lebanon.....	.10	.15	.21	3	Sweden.....	.10	.15	.21	
China (Mainland).....	.10	.15	.21	3	Leeward Is. (West Indies).....	.10	.15	.17	3	Switzerland.....	.10	.15	.21	2
Colombia.....	.10	.15	.17	3	Lesotho.....	.10	.15	.21	5	Syria.....	.10	.15	.21	3
Comoro Is. (France).....	.10	.15	.21	3	Liberia.....	.10	.15	.21	5					
Congo (Brazzaville).....	.10	.15	.21	2	Libya.....	.10	.15	.21	2	Tanzania.....	.10	.15	.21	4
Congo (Kinshasa).....	.10	.15	.21	2	Liechtenstein.....	.10	.15	.21	2	Tasmania (Australia).....	.10	.15	.21	4
Cook Is. (New Zealand).....	.10	.15	.21	3	Luxembourg.....	.10	.15	.21	2	Thailand.....	.10	.15	.21	3
Corsica (France).....	.10	.15	.21	2						Timor (Portugal).....	.10	.15	.21	4
Costa Rica.....	.10	.15	.17	2	Macao (Portugal).....	.10	.15	.21	3	Togo.....	.10	.15	.21	2
Cuba.....	.10	.15	.17	4	Madeira Is. (Portugal).....	.10	.15	.21	2	Tonga Is. (Great Britain).....	.10	.15	.21	3
Cyprus.....	.10	.15	.21	4	Malagasy Republic (Madagascar).....	.10	.15	.21	3	Trinidad and Tobago Is. (Britain).....	.10	.15	.17	2
Czechoslovakia.....	.10	.15	.21	2	Malawi.....	.10	.15	.21	6	Tristan de Cunha & Gough Is.....	.10	.15	.21	3
					Malaysia.....	.10	.15	.21	5	Tunisia.....	.10	.15	.21	2
Dahomey.....	.10	.15	.21	2	Maldives Is.....	.10	.15	.21	5	Turkey.....	.10	.15	.21	3
Denmark.....	.10	.15	.21	2	Mali Republic.....	.10	.15	.21	2	Turks & Caicos Is. (Great Britain).....	.10	.15	.17	2
Dominican Republic.....	.10	.15	.17	2	Malta (Great Britain).....	.10	.15	.21	2					
					Martinique (France).....	.10	.15	.17	2	Uganda.....	.10	.15	.21	4
Ecuador.....	.10	.15	.17	3	Mauritania.....	.10	.15	.21	2	United States of America -				
Egypt (United Arab Republic).....	.10	.15	.21	2	Mauritius (Great Britain).....	.10	.15	.21	3	Domestic rates only.....	.06	.08	.11*	
El Salvador.....	.10	.15	.17	2	Mexico.....	.06	.08	.11*	2	U. S. S. R.....	.10	.15	.21	
Ethiopia.....	.10	.15	.21	3	Morocco.....	.10	.15	.21	2	Upper Volta.....	.10	.15	.21	2
					Mozambique (Portugal).....	.10	.15	.21	3	Uruguay.....	.10	.15	.17	2
Faeroe Is. (Denmark).....	.10	.15	.21	2	Muscat and Oman.....	.10	.15	.21	4					
Falkland Is. (Great Britain).....	.10	.15	.17	3						Vatican City.....	.10	.15	.21	2
Fiji Is. (Great Britain).....	.10	.15	.21	4	Nauru Is.....	.10	.15	.21	4	Venezuela.....	.10	.15	.17	2
Finland.....	.10	.15	.21	2	Nepal.....	.10	.15	.21	5	Vietnam.....	.10	.15	.21	2
France.....	.10	.15	.21	2	Netherlands.....	.10	.15	.21	2	Virgin Is. (Great Britain).....	.10	.15	.17	2
French Polynesia Is.....	.10	.15	.21	2	Netherlands Antilles.....	.10	.15	.17	1					
French Somaliland (Afars and Issas).....	.10	.15	.21	2	New Caledonia (France).....	.10	.15	.21	2	West Irian (Indonesia).....	.10	.15	.21	3
					New Guinea, N.E. (Australia).....	.10	.15	.21	3	Windward Is. (West Indies).....	.10	.15	.17	2
Gabon Republic.....	.10	.15	.21	2	New Hebrides Is.....	.10	.15	.21	2					
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Germany, Eastern Zone.....	.10	.15	.21	2	Niger.....	.10	.15	.21	2					
Ghana.....	.10	.15	.21	3	Nigeria.....	.10	.15	.21	3	Zambia.....	.10	.15	.21	
Gibraltar (Great Britain).....	.10	.15	.21	2	Northern Ireland.....	.10	.15	.21	2	Zanzibar.....	.10	.15	.21	4
Gilbert and Ellice Is.....	.10	.15	.21	5	Norway.....	.10	.15	.21	2					

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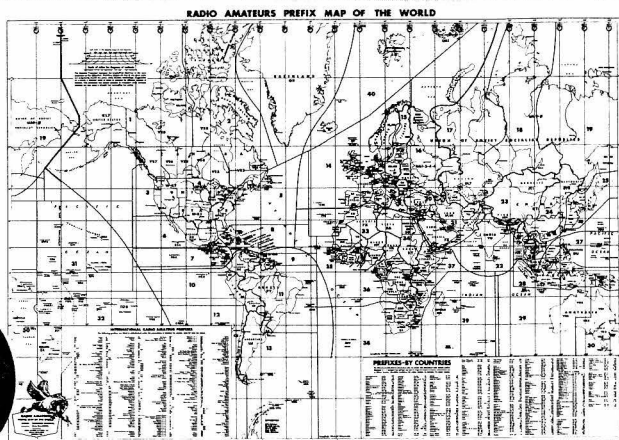
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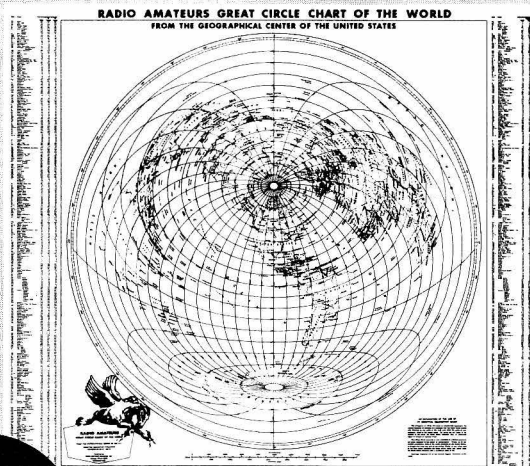
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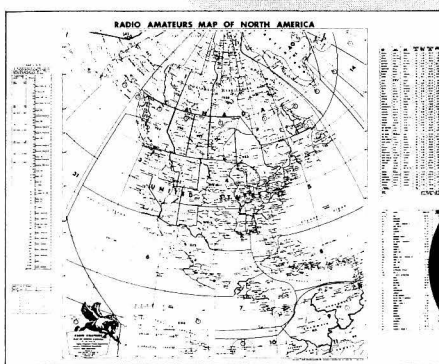
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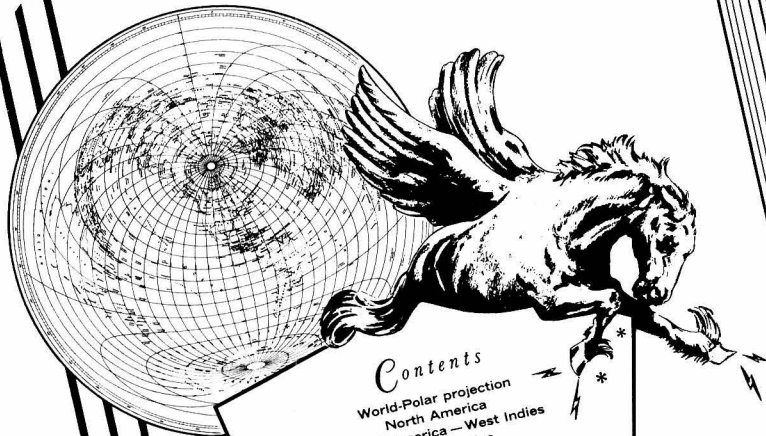
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STANDARD TIME THROUGHOUT THE WORLD

The standard time system is based on the theoretical division of the surface of the globe into 24 zones, each of 15° of longitude. The initial zone is the one which has as its central meridian the Greenwich Meridian and with the meridians 7° 30' E. and 7° 30' W. as its eastern and western limits. Time in this zone is called Greenwich Mean Time, or GMT. Places to the east of Greenwich have faster time than Greenwich, while places to the west have slower time. Not all countries follow the International Time Zone System, but some use the time of some principal city as a standard and others have no standard time.

Reference - "Standard Time Chart of the World" No. 5192, published by U. S. Navy Hydrographic Office, Washington, D. C.

The theoretical system described is applied, in a strict sense, only in oceanic regions. On land or on groups of islands the system is applied with certain local deviations, which, are rendered necessary by frontiers, convenience of an entire island group to maintain same zone time, etc. The time used in each country, whether it is the time of the corresponding zone or modified for reasons given, is an hour fixed by law and, for this reason, is called legal time, or more generally standard time.

Another deviation from this theoretical system is that certain countries, for economic reasons, modify their legal time for part of the year, especially in summer, by advancing it an hour or another fraction of time. Where such deviations are maintained on a year-round basis, the time kept is considered to be standard time.

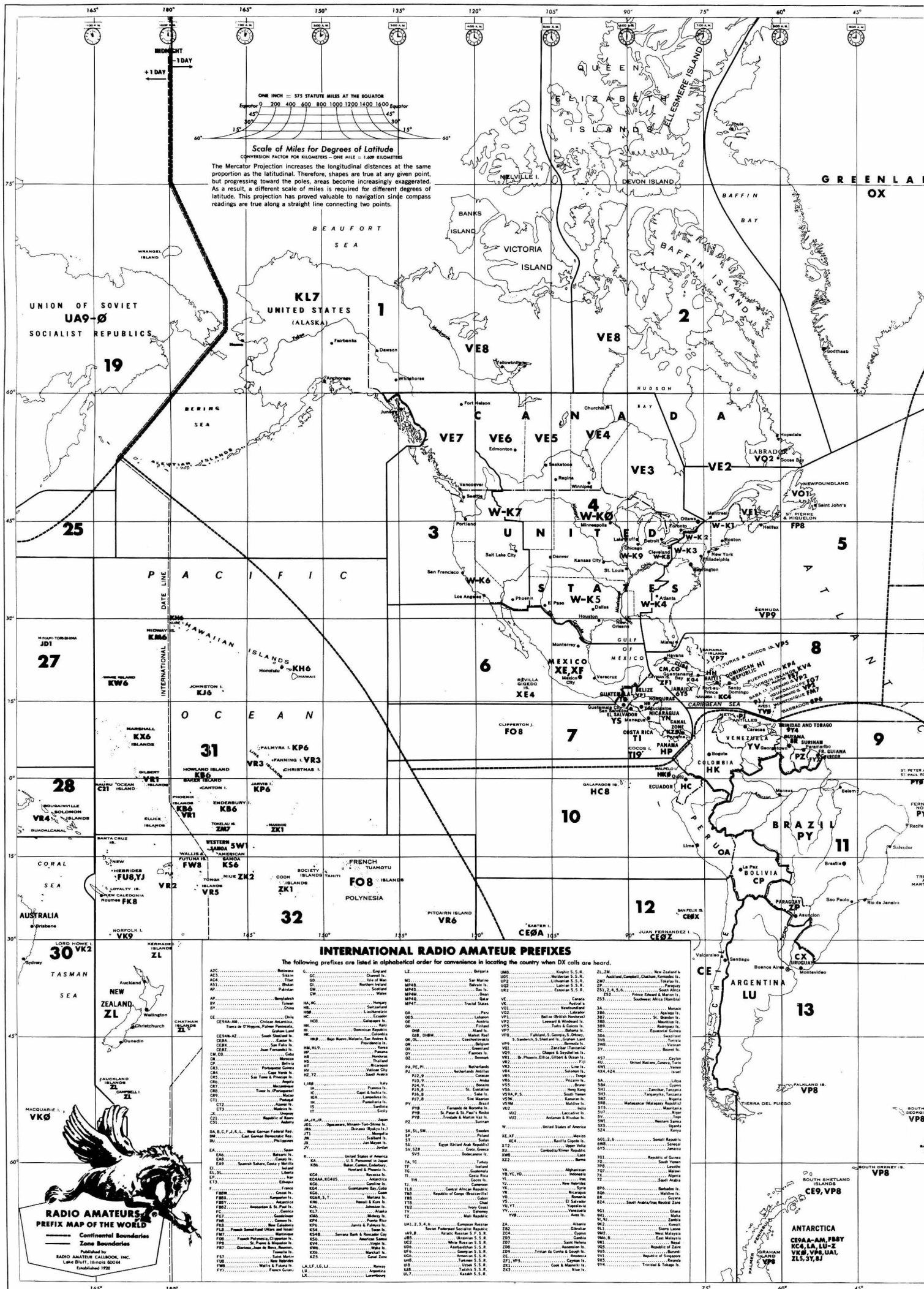
Country	Standard or Local Time	
	Hours fast or slow of GMT	Time at 1200 hrs. GMT
Aden, Kamanar, Socotra Is.	+ 3	15 00
Afghanistan	+ 4 1/2	16 30
Alaska, Juneau, Ketchikan, Sitka	- 8	04 00
Yakutat	- 9	03 00
Central part, Kodiak Is.	- 10	02 00
West coast, Aleutian Is.	- 11	01 00
Albania	+ 1	13 00
Algeria	+ 1	13 00
Amsterdam, St. Paul, Kerguelen Is.	+ 5	17 00
Andorra	+ 1	13 00
Angola	+ 1	13 00
Argentina	- 4	08 00
Ascension Is., St. Helena Is.	0	12 00
Australia, Western Australia	+ 8	20 00
Northern Territory, South Australia	+ 9 1/2	21 30
New South Wales, Queensland, Victoria, Lord Howe Is., Tasmania Is.	+ 10	22 00
Austria	+ 1	13 00
Azores Is.	- 1	11 00
Bahama Is.	- 5	07 00
Bahrain Is.	+ 4	16 00
Baker, Canton, Enderbury, Howland & Phoenix Is.	- 11	01 00
Basutoland	+ 2	14 00
Bechuanaland	+ 2	14 00
Belgium	+ 1	13 00
Bermuda Is.	- 4	08 00
Bhutan	+ 5 1/2	17 30
Bolivia	- 4	08 00
Bonin, Volcano, Mariana, Saipan, Tinian, Guam Is.	+ 10	22 00
Borneo (Indonesia)	+ 7 1/2	19 30
Brazil, Fernando Noronha, Trindade & Martin Vaz Is.	- 3	09 00
East of 52° 30' W (approx.)	- 4	08 00
Amazonas, Matto Grosso	- 5	07 00
Acre Territory	- 5 1/2	06 30
British Honduras	+ 1	13 00
British Isles	- 11	01 00
British Phoenix Is.	+ 8	20 00
Brunei	+ 8	20 00
Bulgaria	+ 2	14 00
Burma	+ 6 1/2	18 30
Burundi	+ 2	14 00
Cambodia	+ 7	19 00
Cameroun	+ 1	13 00
Canada, Belle Isle, Labrador, Newfoundland	- 3 1/2	08 30
Anticosti Is., Cape Breton Is., Magdalen Is., New Brunswick, Nova Scotia, Prince Edward Is., Quebec (E of 68° W), Sable Is., Melville Peninsula (east), Ontario (E of 90° W), Quebec (W of 68° W), Southampton Is.	- 4	08 00
Manitoba, Ontario (W of 90° W), Melville Peninsula (west), N. W. Territories (east)	- 5	07 00
Alberta, Saskatchewan, N. W. Territories (middle)	- 6	06 00
British Columbia, N. W. Territories (west)	- 7	05 00
Yukon	- 8	04 00
Arctic Is*	- 9	03 00
Canal Zone	- 5	07 00
Canary Is.	0	12 00
Cape Verde Is.	- 2	10 00
Caroline Is., Western	+ 9	21 00
Eastern	+ 11	23 00
Cayman Is.	- 5	07 00
Celebes Is. (Indonesia)	+ 8	20 00
Central African Republic	+ 1	13 00
Ceylon Is.	+ 5 1/2	17 30
Chad	+ 1	13 00
Chagos Is.	+ 5	17 00
Chatham Is.	+ 12 3/4	00 45
Chile, Juan Fernandez Is.	- 4	08 00
China, Western part	+ 5	17 00
Mid-western part	+ 6	18 00
Mid-eastern part	+ 7	19 00
Eastern part	+ 8	20 00
Christmas Is.	+ 7	19 00
Clipperton Is.	- 7	05 00
Cocos-Keeling Is.	+ 6 1/2	18 30
Colombia, San Andres & Providencia Is.	- 5	07 00
Comora Is.	+ 3	15 00
Congo, Republic of (Brazzaville)	+ 1	13 00
Congo, Republic of the (Leopoldville), western part	+ 1	13 00
Eastern part	+ 2	14 00
Cook Is.	- 10 1/2	01 30
Costa Rica, Cocos Is.	- 6	06 00
Crozet Is.	+ 3	15 00
Cuba	- 5	07 00
Cyprus Is.	+ 2	14 00
Czechoslovakia	+ 1	13 00
Dahomey	+ 1	13 00
Das Is.	+ 4	16 00
Denmark	+ 1	13 00
Dominican Republic	- 5	07 00
Easter Is.	- 7	05 00
Ecuador, Galapagos Is.	- 5	07 00
Egypt	+ 2	14 00
El Salvador	- 6	06 00
Ethiopia	+ 3	15 00

Country	Standard or Local Time	
	Hours fast or slow of GMT	Time at 1200 hrs. GMT
Faeroe Is.	0	12 00
Falkland Is.	- 4	08 00
Fanning & Line Is.	- 10	02 00
Fiji Is.	+ 12	24 00
Finland, Aland Is.	+ 2	14 00
France, Corsica	+ 1	13 00
French Polynesia	- 10	02 00
Gabon	+ 1	13 00
Gambia	0	12 00
Germany	+ 1	13 00
Ghana	0	12 00
Gibraltar	+ 1	13 00
Gilbert & Ellice Is.	+ 12	24 00
Goa	+ 5 1/2	17 30
Greece, Crete, Dodecanese Is.	+ 2	14 00
Greenland, western	- 5	07 00
Guantanamo Bay	- 6	06 00
Guatemala	- 3 3/4	08 15
Guiana, British	- 4	08 00
Guiana, French	- 1	11 00
Guinea, Portuguese	0	12 00
Guinea, Republic of	- 5	07 00
Haiti	- 10	02 00
Hawaii	+ 5	17 00
Heard Is.	- 6	06 00
Honduras	+ 8	20 00
Hong Kong	+ 1	13 00
Hungary	- 1	11 00
Iceland	0	12 00
India, Andaman & Nicobar, Laccadive Is.	+ 5 1/2	17 30
Iran	+ 3 1/2	15 30
Iraq	+ 3	15 00
Ireland	+ 1	13 00
Israel	+ 2	14 00
Italy, Sardinia, Sicily	+ 1	13 00
Ivory Coast	0	12 00
Jamaica	- 5	07 00
Jan Mayen Is.	- 1	11 00
Japan	+ 9	21 00
Jarvis & Palmyra Is.	- 10	02 00
Java (Indonesia)	+ 7 1/2	19 30
Johnston Is.	- 11	01 00
Jordan	+ 2	14 00
Kenya	+ 3	15 00
Korea	+ 9	21 00
Kuwait	+ 3	15 00
Laos	+ 7	19 00
Lebanon	+ 2	14 00
Liberia	- 3/4	11 15
Libya	+ 2	14 00
Liechtenstein	+ 1	13 00
Luxembourg	+ 1	13 00
Macao	+ 8	20 00
Macquarie Is.	+ 11	23 00
Madeira Is.	- 1	11 00
Malagasy Republic (Madagascar Is.)	+ 3	15 00
Malawi (Nyasaland)	+ 2	14 00
Malaysia	+ 7 1/2	19 30
Maldives Is.	+ 5	17 00
Mali Republic	0	12 00
Malta Is.	+ 1	13 00
Manchuria	+ 8	20 00
Manihiki Is.	- 11	01 00
Marshall Is., Wake Is.	+ 12	24 00
Mauritania	0	12 00
Mauritius & Rodriguez Is.	+ 4	16 00
Mexico, east of states of Sonora, Sinaloa & Nayarit	- 6	06 00
Sonora, Sinaloa, Nayarit, Baja California (south of 28° N), Revillagigedo Is.	- 7	05 00
Baja California (north of 28° N)	- 8	04 00
Midway Is.	- 11	01 00
Molucca Is. (Indonesia)	+ 8 1/2	20 30
Monaco	+ 1	13 00
Mongolia*	0	12 00
Morocco	+ 2	14 00
Mozambique	+ 4	16 00
Muscat & Oman	+ 4	16 00
Nauru Is., Norfolk Is.	+ 11 1/2	23 30
Navassa Is.	- 5	07 00
Nepal	+ 5 1/2	17 30
Netherlands	+ 1	13 00
Netherlands Antilles	- 4 1/2	07 30
New Caledonia Is., New Hebrides Is.	+ 11	23 00
New Guinea N.E., Papua	+ 10	22 00
New Zealand, Kermadec Is.	+ 12	24 00
Nicaragua	- 6	06 00
Niger	+ 1	13 00
Nigeria	+ 1	13 00
Niue Is.	- 11	01 00
Norway, Svalbard Is.	+ 1	13 00

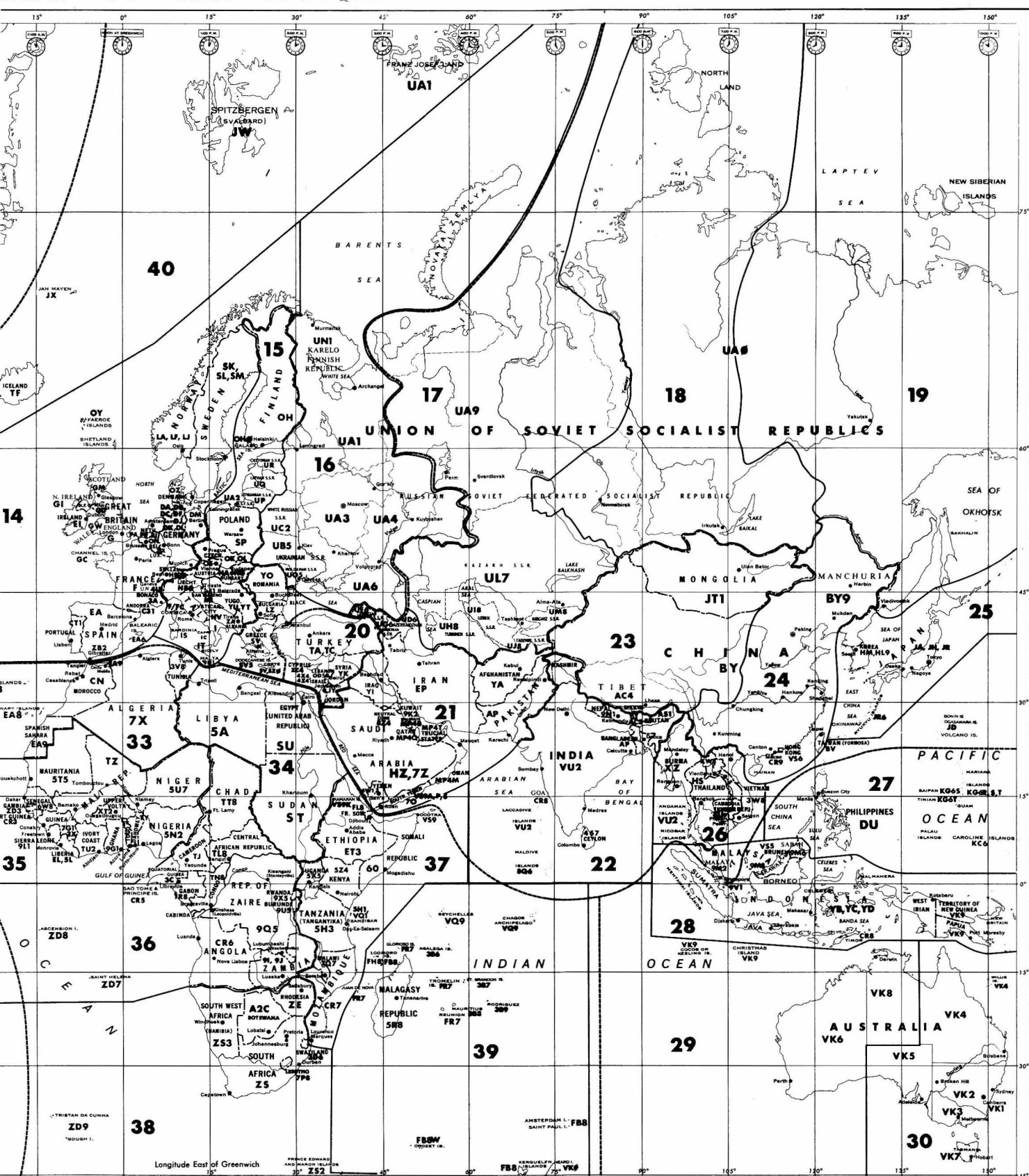
Country	Standard or Local Time	
	Hours fast or slow of GMT	Time at 1200 hrs. GMT
Pakistan, West	+ 5	17 00
East	+ 6	18 00
Panama	- 5	07 00
Paraguay	- 4	08 00
Peru	- 5	07 00
Philippines	+ 8	20 00
Pitcairn Is.	- 10	02 00
Poland	+ 1	13 00
Portugal	+ 1	13 00
Prince Edward & Marion Is.	+ 3	15 00
Puerto Rico	- 4	08 00
Qatar	+ 4	16 00
Reunion Is.	+ 4	16 00
Rhodesia, Southern	+ 2	14 00
Rio Muni	+ 1	13 00
Romania	+ 2	14 00
Rwanda	+ 2	14 00
Ryukyu Is. (Okinawa)	+ 9	21 00
Sabah, Sarawak (Malaysia)	+ 8	20 00
St. Pierre & Miquelon Is.	- 3	09 00
Samoa Is.	- 11	01 00
San Marino	+ 1	13 00
Sao Tome & Principe Is.	0	12 00
Sarawak	+ 8	20 00
Saudi Arabia*	0	12 00
Senegal	- 5	07 00
Serrana Bank & Roncador Cay	+ 4	16 00
Seychelles Is.	+ 0	12 00
Sierra Leone	+ 5 1/2	17 30
Sikkim	+ 7 1/2	19 30
Singapore	+ 8	20 00
Solomon Is.	+ 11	23 00
Somali Republic	+ 3	15 00
Somaliand, French	+ 3	15 00
South Africa	+ 2	14 00
South Georgia Is., South Sandwich Is.	- 2	10 00
South Shetland Is., South Orkney Is*	+ 2	14 00
South-West Africa	+ 1	13 00
Spain, Balearic Is., Ceuta y Melilla	0	12 00
Spanish Sahara (Rio de Oro)	+ 2	14 00
Sudan	+ 6 1/2	18 30
Sumatra Is. (Indonesia), west	+ 7	19 00
east	- 3 1/2	08 30
Surinam (Netherlands Guiana)	- 6	06 00
Swan Is.	+ 2	14 00
Swaziland	+ 1	13 00
Sweden	+ 1	13 00
Switzerland	+ 1	13 00
Syria	+ 2	14 00
Taiwan (Formosa)	+ 8	20 00
Tanganyika	+ 3	15 00
Thailand	+ 7	19 00
Tibet	+ 6	18 00
Timor Is.	+ 8	20 00
Togo	- 11	01 00
Tokelau Is.	+ 13	01 00
Tonga (Friendly) Is.	0	12 00
Tristan de Cunha & Gough Is.	+ 4	16 00
Tromelin Is.	+ 4	16 00
Trucial Oman	+ 1	13 00
Tunisia	+ 2	14 00
Turkey	+ 3	15 00
Uganda	- 5	07 00
United States of America, Eastern time	- 6	06 00
Central time	- 7	05 00
Mountain time	- 8	04 00
Pacific time	- 3	09 00
Upper Volta	0	12 00
Uruguay	- 3	09 00
U. S. S. R., Estonia, Latvia, Lithuania, Karelo-Finnish, White Russia, Ukraine, Moldavia, European Russia	+ 3	15 00
Georgia, Armenia, Azerbaidzhan	+ 4	16 00
Kazakh, Uzbek, Turkmen, Tadzhik	+ 5	17 00
Kirghiz, West Siberian region	+ 6	18 00
Approx. 82° 30' to 97° 30' W.	+ 7	19 00
Buryat, East Siberian region	+ 8	20 00
Approx. 112° 30' to 127° 30' W.	+ 9	21 00
Kuril Is., Sakhalin Is.	+ 10	22 00
Approx. 142° 30' to 157° 30' W.	+ 11	23 00
Approx. 157° 30' to 172° 30' W.	+ 12	24 00
Approx. 172° 30' W. to coast	+ 13	01 00
Venezuela	- 4	08 00
Vietnam	+ 8	20 00
Wallis & Futuna Is.	+ 12	24 00
West Iran (Netherlands New Guinea)	+ 9 1/2	21 30
West Indies, Barbados, Trinidad, Tobago, Guadeloupe, Martinique, Leeward Is., Windward Is.	- 4	08 00
Yemen**	+ 1	13 00
Yugoslavia	+ 1	13 00
Zambia (Northern Rhodesia)	+ 2	14 00
Zanzibar Is.	+ 3	15 00

* No definite standard time used.

** "Arabic Time", i.e. daily all watches are set to midnight at sundown.



MAP OF THE WORLD



PREFIXES-BY COUNTRIES

The following countries listed in alphabetical order by country show international radio amateur prefixes. Characters in () designate the continent and zone in which the country is located. Abbreviations are as follows: A—Asia, AF—Africa, E—Europe, NA—North America, O—Oceania, SA—South America.

Albania (AF-21)	3A	Cameroon (AF-24)	7Z	El Salvador (NA-21)	YS
Algeria (AF-22)	3B	Canada (NA-23)	9A	Equatorial Guinea (AF-25)	8Q
Angola (AF-23)	3C	Chad (AF-26)	8Z	Egypt (AF-27)	30
Argentina (SA-24)	3D	Colombia (SA-27)	8Y	France (EU-28)	3F
Armenia (EU-25)	3E	Congo (AF-28)	8X	Germany (EU-29)	3G
Australia (OC-30)	3H	Cuba (SA-28)	8W	Ghana (AF-29)	8T
Austria (EU-31)	3I	Cyprus (EU-32)	8V	Greece (EU-33)	3L
Azerbaijan (EU-34)	3J	Czech Republic (EU-34)	8U	Haiti (AF-30)	8P
Bahrain (AF-31)	3K	Denmark (EU-35)	8T	Honduras (AF-31)	8R
Bangladesh (SA-32)	3L	Ecuador (SA-35)	8S	Hungary (EU-36)	3M
Barbados (AF-32)	3M	El Salvador (NA-21)	YS	Iceland (EU-37)	3N
Belarus (EU-38)	3O	Equatorial Guinea (AF-25)	8Q	India (AS-38)	3V
Belgium (EU-39)	3P	Egypt (AF-27)	30	Indonesia (AS-39)	3W
Belize (AF-33)	3N	France (EU-28)	3F	Iran (AS-40)	3X
Bermuda (NA-40)	3P	Germany (EU-29)	3G	Israel (AS-41)	3Y
Bhutan (AS-42)	3Q	Ghana (AF-29)	8T	Italy (EU-42)	3I
Bolivia (SA-43)	3R	Haiti (AF-30)	8P	Jamaica (NA-43)	3J
Bosnia and Herzegovina (EU-44)	3Q	Honduras (AF-31)	8R	Japan (AS-44)	3J
Brazil (SA-45)	3R	Hungary (EU-36)	3M	Kazakhstan (EU-45)	3K
Bulgaria (EU-46)	3R	Iceland (EU-37)	3N	Kenya (AF-46)	8U
Burkina Faso (AF-47)	8U	India (AS-38)	3V	Kiribati (OC-47)	8V
Burundi (AF-48)	8U	Indonesia (AS-39)	3W	Korea (AS-48)	3L
Cambodia (AF-49)	8U	Iran (AS-40)	3X	Kuwait (AS-49)	8W
Cameroon (AF-24)	7Z	Israel (AS-41)	3Y	Kyrgyzstan (EU-50)	8X
Canada (NA-23)	9A	Italy (EU-42)	3I	Laos (AS-51)	8Y
Cape Verde (AF-50)	8V	Jamaica (NA-43)	3J	Latvia (EU-52)	8Y
Casual Zone (AF-51)	8Z	Japan (AS-44)	3J	Lebanon (AF-53)	8X
Cayman Islands (NA-52)	8Z	Kazakhstan (EU-45)	3K	Lesotho (AF-54)	8X
Central African Republic (AF-55)	8Z	Kenya (AF-46)	8U	Liberia (AF-55)	8X
Chad (AF-26)	8Z	Kiribati (OC-47)	8V	Lithuania (EU-56)	8Y
Chile (SA-56)	3S	Korea (AS-48)	3L	Madagascar (AF-56)	8M
China (AS-40)	3Y	Kuwait (AS-49)	8W	Mali (AF-57)	8T
Ciudad del Cabo (AF-57)	8T	Kyrgyzstan (EU-50)	8X	Malta (EU-57)	3M
Colombia (SA-27)	8Y	Laos (AS-51)	8Y	Mauritania (AF-58)	8T
Costa Rica (SA-58)	8R	Latvia (EU-52)	8Y	Mauritius (AF-59)	8M
Cote d'Ivoire (AF-60)	8T	Lebanon (AF-53)	8X	Mexico (NA-59)	3X
Croatia (EU-61)	8Y	Lesotho (AF-54)	8X	Moldova (EU-60)	8U
Cuba (SA-28)	8W	Liberia (AF-55)	8X	Monaco (EU-61)	3M
Cyprus (EU-32)	8V	Lithuania (EU-56)	8Y	Montenegro (EU-62)	8Y
Czech Republic (EU-34)	8U	Madagascar (AF-56)	8M	Morocco (AF-63)	8T
Dominican Republic (AF-64)	8R	Mali (AF-57)	8T	Mozambique (AF-64)	8M
Dominica (AF-65)	8R	Malta (EU-57)	3M	Nicaragua (AF-65)	8R
Dominica (AF-65)	8R	Mauritania (AF-58)	8T	Niger (AF-66)	8T
Dominica (AF-65)	8R	Mauritius (AF-59)	8M	Nigeria (AF-67)	8T
Dominica (AF-65)	8R	Mexico (NA-59)	3X	North Macedonia (AF-68)	8T
Dominica (AF-65)	8R	Moldova (EU-60)	8U	Paraguay (SA-69)	8Y
Dominica (AF-65)	8R	Monaco (EU-61)	3M	Peru (SA-70)	8Y
Dominica (AF-65)	8R	Montenegro (EU-62)	8Y	Philippines (AS-71)	3U
Dominica (AF-65)	8R	Morocco (AF-63)	8T	Poland (EU-72)	3P
Dominica (AF-65)	8R	Mozambique (AF-64)	8M	Portugal (EU-73)	3P
Dominica (AF-65)	8R	Nicaragua (AF-65)	8R	Romania (EU-74)	3P
Dominica (AF-65)	8R	Niger (AF-66)	8T	Russia (EU-75)	3P
Dominica (AF-65)	8R	Nigeria (AF-67)	8T	Saint Kitts and Nevis (AF-76)	8R
Dominica (AF-65)	8R	North Macedonia (AF-68)	8T	Saint Lucia (AF-77)	8R
Dominica (AF-65)	8R	Paraguay (SA-69)	8Y	Saint Vincent and the Grenadines (AF-78)	8R
Dominica (AF-65)	8R	Peru (SA-70)	8Y	Samoa (AF-79)	8U
Dominica (AF-65)	8R	Philippines (AS-71)	3U	Senegal (AF-80)	8T
Dominica (AF-65)	8R	Poland (EU-72)	3P	Sierra Leone (AF-81)	8T
Dominica (AF-65)	8R	Portugal (EU-73)	3P	Slovak Republic (EU-82)	8Y
Dominica (AF-65)	8R	Romania (EU-74)	3P	Slovenia (EU-83)	8Y
Dominica (AF-65)	8R	Russia (EU-75)	3P	South Africa (AF-84)	8T
Dominica (AF-65)	8R	Saint Kitts and Nevis (AF-76)	8R	South Sudan (AF-85)	8T
Dominica (AF-65)	8R	Saint Lucia (AF-77)	8R	Sri Lanka (AF-86)	8U
Dominica (AF-65)	8R	Saint Vincent and the Grenadines (AF-78)	8R	Sudan (AF-87)	8T
Dominica (AF-65)	8R	Samoa (AF-79)	8U	Swaziland (AF-88)	8T
Dominica (AF-65)	8R	Senegal (AF-80)	8T	Taiwan (AS-89)	3U
Dominica (AF-65)	8R	Sierra Leone (AF-81)	8T	Tanzania (AF-90)	8T
Dominica (AF-65)	8R	Slovak Republic (EU-82)	8Y	Togo (AF-91)	8T
Dominica (AF-65)	8R	Slovenia (EU-83)	8Y	Tonga (AF-92)	8U
Dominica (AF-65)	8R	South Africa (AF-84)	8T	Trinidad and Tobago (AF-93)	8R
Dominica (AF-65)	8R	South Sudan (AF-85)	8T	Tunisia (AF-94)	8T
Dominica (AF-65)	8R	Sri Lanka (AF-86)	8U	Turkey (EU-95)	3P
Dominica (AF-65)	8R	Sudan (AF-87)	8T	Ukraine (EU-96)	3P
Dominica (AF-65)	8R	Swaziland (AF-88)	8T	United Kingdom (EU-97)	3P
Dominica (AF-65)	8R	Taiwan (AS-89)	3U	United States (NA-98)	3P
Dominica (AF-65)	8R	Tanzania (AF-90)	8T	Uruguay (SA-99)	8Y
Dominica (AF-65)	8R	Togo (AF-91)	8T	Uzbekistan (EU-100)	8X
Dominica (AF-65)	8R	Tonga (AF-92)	8U	Venezuela (SA-101)	8Y
Dominica (AF-65)	8R	Trinidad and Tobago (AF-93)	8R	Vietnam (AS-102)	3U
Dominica (AF-65)	8R	Tunisia (AF-94)	8T	Yemen (AF-103)	8T
Dominica (AF-65)	8R	Turkey (EU-95)	3P	Zambia (AF-104)	8T
Dominica (AF-65)	8R	Ukraine (EU-96)	3P	Zimbabwe (AF-105)	8T
Dominica (AF-65)	8R	United Kingdom (EU-97)	3P		
Dominica (AF-65)	8R	United States (NA-98)	3P		
Dominica (AF-65)	8R	Uruguay (SA-99)	8Y		
Dominica (AF-65)	8R	Uzbekistan (EU-100)	8X		
Dominica (AF-65)	8R	Venezuela (SA-101)	8Y		
Dominica (AF-65)	8R	Vietnam (AS-102)	3U		
Dominica (AF-65)	8R	Yemen (AF-103)	8T		
Dominica (AF-65)	8R	Zambia (AF-104)	8T		
Dominica (AF-65)	8R	Zimbabwe (AF-105)	8T		

INTERNATIONAL "Q" SIGNALS

Abbreviation	Question	Answer or Advice	Abbreviation	Question	Answer or Advice
QRA	What is the name of your station?	The name of my stations is . . .	QSY	Will you listen to . . . [call sign(s)] on . . . kc/s (or Mc/s)	I am listening to . . . [call sign(s)] on . . . kc/s (or Mc/s).
QRB	How far approximately are you from my station?	The approximate distance between our stations is . . . nautical miles (or kilometres)	QSZ	Shall I change to transmission on another frequency?	Change to transmission on another frequency [or on . . . kc/s (or Mc/s)].
QRD	Where are you bound and where are you from?	I am bound for . . . from . . .	QTA	Shall I send each word or group more than once?	Send each word or group twice (or . . . times).
QRG	Will you tell me my exact frequency or that of . . . ?	Your exact frequency (or that of . . . is . . . kc/s (or Mc/s).	QTB	Shall I cancel telegram number . . . as if it had not been sent?	Cancel telegram number . . . as if it had not been sent.
QRH	Does my frequency vary?	Your frequency varies.	QTC	Do you agree with my counting of words?	I do not agree with your counting of words; I will repeat the first letter or digit of each word or group.
QRI	How is the tone of my transmission?	The tone of your transmission is . . . (1. Good; 2. Variable; 3. Bad).	QTE	How many telegrams have you to send?	I have . . . telegrams for you (or for . . .).
QRK	What is the readability of my signals (or those of . . .)?	The readability of your signals (or those of . . .) is . . . (1. Unreadable; 2. Readable now and then; 3. Readable, but with difficulty; 4. Readable; 5. Perfectly readable).	QTH	What is my TRUE bearing from you?	Your TRUE bearing from me is . . . degrees (at . . . hours)
QRL	Are you busy?	I am busy (or I am busy with . . .). Please do not interfere.	QTI	What is my TRUE bearing from . . . (call sign)?	Your TRUE bearing from . . . (call sign) was . . . degrees (at . . . hours)
QRM	Are you being interfered with?	I am being interfered with.	QTL	What is the TRUE bearing of . . . (call sign) from . . . (call sign)?	The TRUE bearing of . . . (call sign) from . . . (call sign) was . . . degrees (at . . . hours).
QRN	Are you troubled by static?	I am troubled by static.	QTN	Will you send two dashes of ten seconds each followed by your call sign (repeated . . . times) [on . . . kc/s (or Mc/s)]?	I am going to send two dashes of ten seconds each followed by my call sign (repeated . . . times) [on . . . kc/s (or Mc/s)]
QRO	Shall I increase power?	Increase power.	QTO	Will you request . . . to send two dashes of ten seconds followed by his call sign (repeated . . . times) on . . . kc/s (or Mc/s)?	I have requested . . . to send two dashes of ten seconds followed by his call sign (repeated . . . times) on . . . kc/s (or Mc/s).
QRP	Shall I decrease power?	Decrease power.	QTP	What is your position in latitude and longitude (or according to any other indication)?	My position is . . . latitude . . . longitude (or according to any other indication).
QRQ	Shall I send faster?	Send faster (. . . words per minute).	QTR	What is your TRUE track?	My TRUE track is . . . degrees.
QRR	Are you ready for automatic operation?	I am ready for automatic operation. Send at . . . words per minute.	QTS	What is your speed?	My speed is . . . knots (or kilometres per hour).
QRS	Shall I send more slowly?	Send more slowly (. . . words per minute).	QTV	What is your TRUE heading?	My TRUE heading is . . . degrees.
QRT	Shall I stop sending?	Stop sending.	QTX	At what time did you depart from . . . (place)?	I departed from . . . (place) at . . . hours.
QRU	Have you anything for me?	I have nothing for you.	QUA	Have you left dock (or port)?	I have left dock (or port)
QRV	Are you ready?	I am ready.	QUB	Are you airborne?	I am airborne.
QRW	Shall I inform . . . that you are calling him on . . . kc/s (or Mc/s).	Please inform . . . that I am calling him on . . . kc/s (or Mc/s).	QUC	Are you going to enter dock (or port)?	I am going to enter dock (or port)
QRX	When will you call me again?	I will call you again at . . . hours [on . . . kc/s (or Mc/s)].	QUD	Are you going to alight (or land)?	I am going to alight (or land).
QRY	What is my turn?	Your turn is Number . . . (Relates to communication.)	QUE	Can you communicate with my station by means of the International Code of Signals?	I am going to communicate with your station by means of the International Code of Signals.
QRZ	Who is calling me?	You are being called by . . . [on . . . kc/s (or Mc/s)].	QUF	What is the correct time?	The correct time is . . . hours.
QSA	What is the strength of my signals (or those of . . .)?	The strength of your signals (or those of . . .) is . . . (1. Scarcely perceptible; 2. Weak; 3. Fairly good; 4. Good; 5. Very good).	QUG	Will you send your call sign for . . . minute(s) now (or at . . . hours) [on . . . kc/s (or Mc/s)] so that your frequency may be measured?	I will send my call sign for . . . minute(s) now (or at . . . hours) [on . . . kc/s (or Mc/s)] so that my frequency may be measured.
QSB	Are my signals fading?	Your signals are fading.	QUH	What are the hours during which your station is open?	My station is open from . . . to . . . hours.
QSD	Is my keying defective?	Your keying is defective.	QUI	Shall I stand guard for you on the frequency of . . . kc/s (or Mc/s) (from . . . to . . . hours)?	Stand guard for me on the frequency of . . . kc/s (or Mc/s) (from . . . to . . . hours).
QSG	Shall I send . . . telegrams at a time?	Send . . . telegrams at a time.	QUJ	Will you keep your station open for further communication with me until further notice (or until . . . hours)?	I will keep my station open for further communication with you until further notice (or until . . . hours).
QSH	What is the charge to be collected per word to . . . including your internal telegraph charge?	The charge to be collected per word to . . . including my internal telegraph charge is . . . francs.	QUK	Have you news of . . . (call sign)?	Here is news of . . . (call sign).
QSK	Can you hear me between your signals?	I can hear you between my signals.	QUL	Can you give me, in the following order, information concerning: visibility, height of clouds, direction and velocity of ground wind at . . . (place of observation)?	Here is the information requested . . .
QSL	Can you acknowledge receipt?	I am acknowledging receipt.	QUM	What is the number (or other indication) of the last message you received from me [or from (call sign)]?	The number (or other indication) of the last message I received from you [or from . . . (call sign)] is . . .
QSM	Shall I repeat the last telegram which I sent you, or some previous telegram?	Repeat the last telegram which you sent me [or telegram(s) number(s) . . .].	QUN	Have you received the urgency signal sent by . . . (call sign of mobile station)?	I have received the urgency signal sent by . . . (call sign of mobile station) at . . . hours.
QSN	Did you hear me [or . . . (call sign)] on . . . kc/s (or Mc/s)?	I did hear you [or . . . (call sign)] on . . . kc/s (or Mc/s).	QUO	Have you received the distress signal sent by . . . (call sign of mobile station)?	I have received the distress signal sent by . . . (call sign of mobile station) at . . . hours.
QSO	Can you communicate with . . . direct or by relay?	I can communicate with . . . direct (or by relay through . . .).	QUQ	Will you be forced to alight (or land)?	I am forced to alight (or land immediately).
QSP	Will you relay to . . . free of charge?	I will relay to . . . free of charge.	QUH	Will you give me the present barometric pressure at sea level?	I shall be forced to alight (or land) at . . . (position or place).
QSQ	Have you a doctor on board [or is . . . (name of person) on board]?	I have a doctor on board [or . . . name of person] is on board].			The present barometric pressure at sea level is . . . (units).
QSU	Shall I send or reply on this frequency [or on . . . kc/s (or Mc/s)] (with emissions of class . . .)?	Send or reply on this frequency [or on . . . kc/s (or Mc/s)] (with emissions of class . . .).			
QSV	Shall I send a series of V's on this frequency [or . . . kc/s (or Mc/s)]?	Send a series of V's on this frequency [or . . . kc/s (or Mc/s)].			
QSW	Will you send on this frequency [or on . . . kc/s (or Mc/s)] (with emissions of class . . .)?	I am going to send on this frequency [or on . . . kc/s (or Mc/s)] (with emissions of class . . .).			

CENSUS OF AMATEUR RADIO LICENSES* in the U.S.A.

by classes, within states and call areas

Call Area	State	Novice	Tech-nician	Con-ditional	General	Advanced	Extra	Club	Military	State totals	YL's (Included in state totals)
#1	Conn.	375	693	642	1,625	986	289	80	7	4,697	171
	Maine	64	132	485	380	309	84	17	3	1,474	59
	Mass.	555	2,794	514	3,757	2,093	521	125	18	10,377	430
	N.H.	63	411	187	555	316	74	25	2	1,633	81
	R.I.	74	454	98	521	258	59	19	5	1,488	62
	Vermont	38	81	197	171	141	33	11	2	674	37
		<u>1,169</u>	<u>4,565</u>	<u>2,123</u>	<u>7,009</u>	<u>4,103</u>	<u>1,060</u>	<u>277</u>	<u>37</u>	<u>20,343</u>	<u>840</u>
#2	N.J.	897	3,054	325	4,483	2,726	681	157	5	12,328	339
	N.Y.	<u>1,751</u>	<u>5,289</u>	<u>745</u>	<u>8,206</u>	<u>4,706</u>	<u>1,113</u>	<u>324</u>	<u>34</u>	<u>22,168</u>	<u>751</u>
		<u>2,648</u>	<u>8,343</u>	<u>1,070</u>	<u>12,689</u>	<u>7,432</u>	<u>1,794</u>	<u>481</u>	<u>39</u>	<u>34,496</u>	<u>1,090</u>
#3	Del.	67	125	33	252	151	37	13	3	681	24
	D.C.	27	56	20	160	125	48	20	5	461	7
	Md.	416	808	243	1,925	1,388	370	68	27	5,245	159
	Pa.	<u>1,000</u>	<u>3,375</u>	<u>695</u>	<u>5,420</u>	<u>2,872</u>	<u>675</u>	<u>217</u>	<u>26</u>	<u>14,280</u>	<u>497</u>
		<u>1,510</u>	<u>4,364</u>	<u>991</u>	<u>7,757</u>	<u>4,536</u>	<u>1,130</u>	<u>318</u>	<u>61</u>	<u>20,667</u>	<u>687</u>
#4	Alabama	345	582	636	1,157	632	140	28	16	3,536	155
	Florida	817	1,869	1,699	3,812	2,886	583	110	18	11,794	524
	Georgia	229	585	751	1,315	787	188	45	10	3,910	113
	Ky.	253	450	440	716	486	104	32	6	2,487	87
	N.C.	332	607	825	1,374	938	187	47	10	4,320	148
	S.C.	174	187	798	460	352	98	20	13	2,102	79
	Tenn.	381	1,051	552	1,322	929	197	51	7	4,490	176
	Va.	376	836	723	1,931	1,376	386	61	29	5,718	142
		<u>2,907</u>	<u>6,167</u>	<u>6,424</u>	<u>12,087</u>	<u>8,386</u>	<u>1,883</u>	<u>394</u>	<u>109</u>	<u>38,357</u>	<u>1,424</u>
#5	Ark.	155	288	367	494	395	88	26	5	1,818	91
	La.	240	426	576	992	669	141	35	10	3,089	116
	Miss.	152	128	393	426	325	53	8	5	1,490	47
	N.M.	119	169	480	349	396	112	17	8	1,650	72
	Okla.	277	651	411	946	739	130	38	34	3,226	154
	Texas	<u>1,026</u>	<u>2,525</u>	<u>2,651</u>	<u>4,460</u>	<u>3,347</u>	<u>673</u>	<u>161</u>	<u>47</u>	<u>14,890</u>	<u>782</u>
		<u>1,969</u>	<u>4,187</u>	<u>4,878</u>	<u>7,667</u>	<u>5,871</u>	<u>1,197</u>	<u>285</u>	<u>109</u>	<u>26,163</u>	<u>1,262</u>
#6	Calif.	<u>2,725</u>	<u>7,991</u>	<u>3,331</u>	<u>13,464</u>	<u>9,987</u>	<u>1,948</u>	<u>517</u>	<u>85</u>	<u>40,048</u>	<u>1,575</u>
#7	Arizona	239	657	571	1,050	909	190	32	19	3,667	180
	Idaho	134	72	408	169	219	40	12	0	1,054	62
	Montana	75	45	541	130	180	50	21	3	1,045	60
	Nevada	62	116	403	182	188	33	15	5	1,004	68
	Oregon	453	520	751	1,375	990	183	52	7	4,331	220
	Utah	165	245	163	438	316	59	16	9	1,411	53
	Wash.	670	993	1,116	2,274	1,657	344	77	20	7,151	390
	Wyoming	63	38	216	96	85	24	12	3	537	29
		<u>1,861</u>	<u>2,686</u>	<u>4,169</u>	<u>5,714</u>	<u>4,544</u>	<u>923</u>	<u>237</u>	<u>66</u>	<u>20,200</u>	<u>1,062</u>
#8	Mich.	1,041	2,600	898	3,723	2,178	344	132	14	10,930	425
	Ohio	1,512	4,925	621	5,301	2,868	530	203	16	15,976	629
	W.Va.	<u>160</u>	<u>332</u>	<u>165</u>	<u>600</u>	<u>301</u>	<u>77</u>	<u>20</u>	<u>3</u>	<u>1,658</u>	<u>53</u>
		<u>2,713</u>	<u>7,857</u>	<u>1,684</u>	<u>9,624</u>	<u>5,347</u>	<u>951</u>	<u>355</u>	<u>33</u>	<u>28,564</u>	<u>1,107</u>
#9	Ill.	1,220	3,231	1,420	4,951	2,961	511	219	18	14,531	590
	Ind.	688	1,881	471	2,140	1,231	227	115	10	6,763	302
	Wisc.	<u>526</u>	<u>771</u>	<u>761</u>	<u>1,566</u>	<u>1,042</u>	<u>197</u>	<u>70</u>	<u>16</u>	<u>4,949</u>	<u>139</u>
		<u>2,434</u>	<u>5,883</u>	<u>2,652</u>	<u>8,657</u>	<u>5,234</u>	<u>935</u>	<u>404</u>	<u>44</u>	<u>26,243</u>	<u>1,031</u>
#10	Colo.	333	557	612	1,185	888	180	55	17	3,827	186
	Iowa	376	516	502	1,454	913	143	69	9	3,982	165
	Kansas	288	377	786	1,001	666	164	40	15	3,337	170
	Minn.	599	512	759	1,633	1,061	246	71	2	4,883	176
	Mo.	538	1,041	758	1,837	1,236	254	77	9	5,750	241
	Nebr.	216	287	428	648	453	61	30	2	2,125	96
	N.D.	61	15	414	63	101	23	10	2	689	40
	S.D.	73	47	230	222	184	36	14	2	808	53
		<u>2,484</u>	<u>3,352</u>	<u>4,489</u>	<u>8,043</u>	<u>5,502</u>	<u>1,107</u>	<u>366</u>	<u>58</u>	<u>25,401</u>	<u>1,127</u>
KH6	Hawaii	107	93	213	411	387	68	22	22	1,323	45
KL7	Alaska	80	82	190	326	243	67	8	49	1,045	69
Grand total, 50 states and D.C. only		<u>22,607</u>	<u>55,570</u>	<u>32,214</u>	<u>93,448</u>	<u>61,572</u>	<u>13,063</u>	<u>3,664</u>	<u>712</u>	<u>282,850</u>	<u>11,319</u>

* From the Winter 1972-73 Radio Amateur Callbook Magazine.

GREAT CIRCLE BEARINGS IN THE UNITED STATES

	ATLANTA, GA.	BIRMINGHAM, ALA.	BISMARCK, N. D.	BOSTON, MASS.	BUFFALO, N. Y.	CHARLESTON, W. VA.	CHEYENNE, WYO.	CHICAGO, ILL.	CLEVELAND, OHIO	COLUMBIA, S. C.	DALLAS, TEXAS	DENVER, COLORADO	DES MOINES, IOWA	DETROIT, MICH.	EL PASO, TEXAS	HELENA, MONTANA	HOUSTON, TEXAS	INDIANAPOLIS, IND.	JACKSONVILLE, FLA.	KANSAS CITY, MO.	LITTLE ROCK, ARK.	LOS ANGELES, CALIF.	LOUISVILLE, KY.	MIAMI, FLORIDA	MILWAUKEE, WIS.	MINNEAPOLIS, MINN.	NASHVILLE, TENN.	NEW ORLEANS, LA.	NEW YORK, N. Y.	NORFOLK, VA.	PHILADELPHIA, PA.	PHOENIX, ARIZONA	PITTSBURGH, PA.	ST. LOUIS, MO.	SALT LAKE CITY, UTAH	SAN FRANCISCO, CALIF.	SEATTLE, WASHINGTON	WASHINGTON, D. C.	WILMINGTON, N. C.
ATLANTA, GA.	264	322	47	24	25	301	343	15	86	269	297	320	7	271	310	251	347	145	306	281	281	347	154	345	331	321	234	48	64	48	278	27	318	296	289	308	48	84	
BIRMINGHAM, ALA.	82		326	50	31	40	304	356	26	84	268	299	328	17	270	312	246	5	125	314	287	281	10	142	355	338	0	219	52	67	53	278	37	333	298	290	309	53	83
BISMARCK, N. D.	132	137		92	97	115	209	114	105	124	167	205	133	104	198	273	165	119	132	148	150	233	123	135	109	108	131	151	99	111	102	217	106	134	237	249	282	107	119
BOSTON, MASS.	236	241	291		277	247	278	273	267	226	254	275	275	274	262	293	246	263	220	268	253	273	256	207	278	286	249	237	235	219	233	268	258	262	280	280	295	236	217
BUFFALO, N. Y.	208	217	291	92		206	273	264	237	192	241	269	268	261	252	290	231	243	191	258	237	267	231	184	274	286	225	219	118	160	134	261	199	248	276	276	293	159	174
CHARLESTON, W. VA.	208	223	307	61	24		287	309	359	174	251	282	293	345	260	300	238	293	180	279	251	274	270	174	316	311	245	223	66	108	81	275	286	282	301	80	143		
CHEYENNE, WYO.	108	112	26	76	76	91		81	81	103	140	187	83	79	189	319	143	90	113	101	119	241	95	119	76	62	104	128	81	92	83	219	84	98	268	262	303	87	100
CHICAGO, ILL.	161	175	302	82	78	125	272		93	144	221	266	268	80	242	293	210	151	155	245	208	262	157	156	350	308	173	190	91	116	97	254	101	212	274	272	295	106	131
CLEVELAND, OHIO	197	209	297	80	55	179	277	277		176	240	272	275	310	252	293	228	245	180	261	235	268	226	175	290	296	219	214	95	136	105	262	127	250	278	277	296	124	156
COLUMBIA, S. C.	268	267	317	41	10	354	299	329	356		270	295	311	350	271	308	256	326	189	300	279	282	320	174	331	323	297	246	39	53	37	279	7	305	295	290	307	33	85
DALLAS, TEXAS	81	82	349	57	49	61	325	36	50	80		319	15	45	266	325	157	47	97	15	61	280	55	112	32	11	65	115	60	71	61	277	55	40	308	291	315	63	80
DENVER, COLORADO	103	107	22	73	72	87	6	75	77	99	134		74	74	189	325	138	84	109	91	112	246	90	116	70	55	98	124	78	88	80	224	80	91	283	267	308	83	96
DES MOINES, IOWA	134	144	318	80	78	105	271	84	87	123	197	262		81	231	297	187	105	135	197	171	257	116	141	69	5	133	165	87	104	91	247	92	137	273	270	296	97	115
DETROIT, MICH.	188	200	295	86	79	164	273	263	129	168	233	268	268		248	291	222	224	174	254	227	265	208	171	282	292	206	207	100	133	109	258	128	238	275	274	294	124	151
EL PASO, TEXAS	77	78	14	58	54	64	8	50	56	76	79	8	42	53		345	98	57	86	48	71	285	62	97	46	33	68	92	61	69	62	290	59	57	335	298	327	64	75
HELENA, MONTANA	112	116	85	84	88	100	133	97	93	108	134	141	105	92	162		136	101	115	115	122	203	105	119	94	91	111	127	89	98	92	180	94	109	179	224	283	95	104
HOUSTON, TEXAS	64	60	348	50	40	49	329	25	39	67	338	325	6	34	285	327		34	84	3	26	288	40	103	22	5	46	86	52	60	53	289	45	24	314	297	319	5	68
INDIANAPOLIS, IND.	166	185	308	72	58	110	281	332	62	143	234	276	290	41	250	298	220		157	267	226	267	168	158	338	316	188	199	80	107	85	261	80	251	281	277	298	94	127
JACKSONVILLE, FLA.	327	309	324	33	9	1	308	339	0	8	286	304	323	355	282	314	273	340		314	300	288	338	163	341	332	326	271	29	34	28	287	8	323	303	295	312	23	39
KANSAS CITY, MO.	120	129	332	72	67	90	288	60	73	111	196	278	15	66	236	306	184	82	126		157	262	95	134	50	9	113	157	78	93	81	253	79	97	282	275	302	85	105
LITTLE ROCK, ARK.	97	104	335	59	48	65	307	26	48	92	243	300	352	41	260	315	208	43	114	338		276	55	128	21	356	71	158	62	76	64	271	56	22	297	286	309	67	89
LOS ANGELES, CALIF.	81	82	41	62	61	70	52	62	65	79	88	57	60	62	100	19	96	67	87	67	81		70	94	59	52	76	92	65	71	66	95	67	69	35	319	348	68	78
LOUISVILLE, KY.	166	190	313	66	47	87	287	339	43	137	242	282	301	26	256	302	227	348	156	280	239	271		158	342	322	202	205	71	98	75	266	63	278	285	281	301	82	120
MIAMI, FLORIDA	337	326	329	22	3	355	313	342	356	355	302	310	329	353	291	318	290	342	345	321	315	293	341		342	335	334	298	18	16	15	293	1	330	308	299	315	11	13
MILWAUKEE, WIS.	162	175	297	87	88	132	267	170	107	147	218	261	253	99	239	290	207	157	156	235	204	259	160	157		298	172	188	98	121	103	251	111	203	271	270	293	113	135
MINNEAPOLIS, MINN.	145	154	291	91	96	123	248	125	108	135	193	242	184	105	227	283	186	132	144	189	175	248	137	146	114		148	169	99	116	104	237	110	159	259	261	287	111	127
NASHVILLE, TENN.	140	180	320	59	40	61	295	354	36	114	251	290	318	24	261	307	231	8	142	298	254	275	22	150	353	333		205	63	83	65	271	50	313	291	285	305	68	103
NEW ORLEANS, LA.	50	37	337	46	32	38	318	9	28	60	299	313	347	22	283	321	270	17	86	339	339	288	22	114	7	351	23		46	56	47	287	35	359	308	296	315	47	64
NEW YORK, N. Y.	233	240	296	54	303	251	281	281	280	223	255	278	280	286	262	294	244	269	213	271	253	274	259	202	287	293	251	237		205	229	269	269	266	283	282	297	235	208
NORFOLK, VA.	249	253	306	35	342	291	290	303	319	236	264	286	295	318	268	301	253	294	217	285	267	279	284	198	308	307	269	244	25		16	274	322	284	289	286	302	343	208
PHILADELPHIA, PA.	233	240	298	52	317	255	283	285	289	221	255	279	283	294	263	296	246	273	212	273	255	275	263	199	292	296	252	235	49	197		270	279	269	284	282	298	235	203
PHOENIX, ARIZONA	80	83	29	61	59	69	35	58	62	79	89	40	55	59	108	0	100	64	89	62	80	277	70	97	55	45	74	93	64	72	66		64	66	1	300	334	68	79
PITTSBURGH, PA.	210	221	300	72	18	213	280	286	308	188	246	276	281	310	257	295	235	264	189	268	244	271	246	181	296	299	234	222	85	140	96	265		261	281	279	297	123	165
ST. LOUIS, MO.	134	150	320	70	60	90	287	30	63	119	224	280	319	53	248	303	207	68	137	280	204	267	94	143	20	342	130	179	75	95	79	260	74		284	278	301	84	110
SALT LAKE CITY, UTAH	99	101	50	73	74	86	83	79	78	95	118	98	80	76	152	359	123	84	103	91	104	220	88	109	75	67	95	114	78	86	80	181	80	90		254	315	83	92
SAN FRANCISCO, CALIF.	86	86	54	66	67	75	70	70	70	83	96	75	70	68	109	39	101	73	90	77	88	136	77	96	67	62	81	97	69	76	71	114	71	77	66		1	73	81
SEATTLE, WASHINGTON	103	105	87	81	84	94	111	92	89	100	118	116	97	88	136	96	120	95	105	103	109	165	97	109	90	88	102	114	85	92	87	147	89	100	128	181		90	97
WASHINGTON, D. C.	233	240	302	52	342	263	285	293	307	215	256	281	287	308	263	298	245	280	205	277	257	275	268	192	300	302	254	235	53	163	53	270	305	273	285	283	300		189
WILMINGTON, N. C.	267	267	313	32	355	325	297	318</																															

WORLD WIDE QSL BUREAUS

AP	Pakistan Amateur Radio Society, QSL Bureau, P O Box 65, Lahore, West Pakistan, Asia	K54	Swan Island, West Indies, via Tampa, Florida, USA	W1-K1	Foreign stations only, via Hampden County A R Assn, Box 216, Forest Park Stn, Springfield, Mass 01108
BV	China Radio Association, P O Box 2007, Keelung, Taiwan, Rep. of China	KV4	Graciano Belardo, KV4CF, P O Box 572, Christiansted, St. Croix 00820, Virgin Is., West Indies	W2-K2	Foreign stations only, via North Jersey DX Assn, P O Box 505, Ridgewood, New Jersey 07451
CE	Radio Club of Chile, P O Box 13630, Correo 15, Santiago, Chile, South America	KW6	Jack A Chalk, P O Box 7, Wake Island 96930	W3-K3	Foreign stations only, via W3KT, Jesse Bieberman, RFD 1, Box 66, Malvern, Pa. 19355
CM-CO	Federacion de Radioaficionados de Cuba, P O Box 6996, Havana, Cuba	KX6	Kwajalein Amateur Radio Club, KX6BU, P O Box 444, APO San Francisco 96555, USA	W4-K4	Foreign stations only, via North Alabama DX Club, P O Box 2035, Huntsville, Alabama 35804
CN	ARRAM, P O Box 299, Rabat, Morocco, Africa	KX6	Eniwetok Amateur Radio Club, Air Force Western Test Range, APO San Francisco 96333 USA	WA4-WB4-WN4	Foreign stations only, via W4LR, J R Baker, P O Box 1989, Melbourne, Florida 32901
CN9	Amateur Radio Club Zona Norte, P O Box 124, Tetuan, Morocco, Africa, or via URE or AAEM	KZ5	QSL Manager, KZ500, Box 407, Balboa, Canal Zone, C.A.	W5-K5	Foreign stations only, via W5QMJ, Kenneth F Isbell, 306 Kesterfield Blvd, Enid, Oklahoma 73701
CP	Radio Club Boliviano, P O Box 2111, La Paz, Bolivia, South America	LA	Norwegian Radio Relay Liga, P O Box 21, Refstad, Oslo 5, Norway, Europe	W6-K6	Foreign stations only, via NCDXC, Box 11, Los Altos, California 94022
CP5	QSL Bureau, P O Box 1900, Cochabamba, Bolivia, S.A.	LX	RCA, Radio Club Argentino, Carlos Calvo 1424, Buenos Aires, Argentina, South America	W7-K7	Foreign stations only, via Willamette Valley DX Club, Box 555, Portland, Oregon 97207
CP6	QSL Bureau, P O Box 393, Santa Cruz, Bolivia, S.A.	LZ	Robert Schott, LX1DC, 35 Rue Batty Weber, Esch s/Alzette, Luxembourg, Europe	W8-K8	Foreign stations only, via W8TO, Columbus A R Assn, Radio Rm, 280 E Broad St, Columbus, Ohio 43215
CR4	LARCVA, P O Box 145, Mindelo, Cape Verde Is, Africa	M1	Central QSL Bureau, Box 830, Sofia, Bulgaria, Europe	W9-K9	Foreign stations only, via Northern Illinois DX Ass'n, P O Box 519, Elmhurst, Illinois 60126
CR6	LARA, P O Box 484, Luanda, Angola, Africa	MP4	Geom Mario Graziani, M1B, via Della Tana 226, Republic of San Marino, Europe	W0	Foreign stations only, via W0OPY, Reggie Hoare, Box 115, Mitchellville, Iowa 50169
CR7	LREM, Liga dos Radio Emissores de Mocambique, P O Box 812, Lourenco Marques, Mozambique, Africa	OA	Ian Cable, MP4BBW, Box 425, Awali, Bahrain Is, Asia	K0, WA0, W0B, WN0	Foreign stations only, via Dr Phillip Rowley, K0ZFL, RFD 1, Box 455, Alamosa, Colorado 81101
CR9	Hong Kong Amateur Radio Transmitting Society, P O Box 541, Hong Kong, Asia	OD5	RCP, Radio Club of Peru, Box 538, Lima, Peru, S.A.	WA0	Foreign stations only, via W0QGL, Lloyd Harvey, P O Box 7, Attica, Iowa 50024
CT	REP, Rua D Pedro V-7-4, Lisbon 2, Portugal, Europe	OE	RAL QSL Bureau, Box 8888, Beirut, Lebanon, Asia	XE	ARARM QSL Bureau, Av Hangares 418-#1, Mexico, DF, Mexico
CX	Radio Club of Uruguay, P O Box 37, Montevideo, Uruguay, South America	OH	OE, VSV QSL Bureau, P O Box 999, Vienna 1/9, Austria	XE	Cards for members only may be sent via LMRE, Box 907, Mexico 7, DF, Mexico
DA, B, C, F, J, K, L	DARC Amateurfunk Zentrum, Lindenallee 6, Box 1155, D-3501 Baunatal 1, German Federal Republic	OK-OL	SF-00101 Helsinki 10, Finland	XW8	Houmpanh Saignasith, XW8AL, Statistics Dept, P O Box 46, Vientiane, Laos, Asia
DA1, 2, 4, DL4, 5AA-QZ & VA-WZ	DARC or ARS DL4MM-MARS, HHC 32nd Sig Bn, McNair Kaserne, Konrad Klattstr, D-623 Frankfurt 80, Hoechst, German Federal Republic	ON	Central Radio Club, P O Box 69, Praha 1, Czechoslovakia	YA	CDRC, P O Box 279, Kabul, Afghanistan, Asia
DA1, 2, DL5 RA-UZ	DARC or REF QSL Bureau, Box 70, 75560 Paris Cedex 12, France, Europe	OR	UBA, P O Box 634, Brussels 1, Belgium, Europe	YB1	QSL Bureau, P O Box 288, Bandung, Indonesia
DA1, 2, DL5XA-ZZ	DARC or R5GB QSL Bureau, c/o Arthur Milne G2MI, 29 Kechill Gardens, Hayes, Bromley, Kent, England BR2 7NA	OX-OZ	EDR QSL Bureau, Ingstrup, 9480 Løkken, Denmark, Europe	YB2	QSL Bureau, P O Box 88, Semarang, Indonesia
DM	DM QSL Bureau, P O Box 30, Berlin 55, East German Democratic Republic, Europe	OX4	OX4AA-ZZ via MARS Director, XP1AB, APO New York 09121, USA	YB3	QSL Bureau, P O Box 59, Surabaya, Indonesia
DU	PARA QSL Bureau, P O Box 4083, Manila, Philippines	OX5	OX5AA-ZZ via MARS Director, XP1AA, APO New York 09023, USA	YB4	YB4GA, Johannes Titaley, Gg Sumatra-B-5, Palembang, South Sumatra
EA	URE, Union of Radioaficionados Espanoles, P O Box 220, Madrid, Spain, Europe	OY	QSL Bureau, OY3B, Sofus Rubeksen, U Svartfoss, DK-3800, Torshavn, Faeroes Island, Europe	YB6	QSL Bureau, P O Box 464, Medan, Indonesia
EI	IRTS QSL Bureau, P O Box 462, Stella Av, Dublin 10124, Ireland	OZ	EDR QSL-CENTRAL, Harry Sorensen, OZ6HS, Ingstrup-9480-Løkken, Denmark	YB7, 8, 9, D	QSL Bureau, P O Box 2761, Jakarta, Indonesia
EL	Or EI-QSL-Bureau, P O Box 73, Athlone, Ireland	PA-PE-PI	Dutch QSL Bureau, P O Box 400, Rotterdam, Netherlands	YK	QSL Bureau, P O Box 35, Damascus, Syria, Asia
EL	Cards for EL1 & 2 only - G Marcus Kelly, c/o Liberian Govt. Radio Stn, Monrovia, Liberia, Africa	PJ	VERONA QSL Bureau, P O Box 383, Willemstad, Curacao, Netherlands Antilles, S.A.	YN	Via Mike Murciano, YN1MO/W4, P O Box 902, Coral Gables, Florida 33134 USA
EP	Amateur Radio Society of Iran, c/o Box 1000 ARMISH-MAAG, APO New York 09205	PJ	Cards for Aruba - Aruba Amateur Radio Club, Box 273, San Nicolas, Aruba, Netherlands Antilles, S.A.	YO	The Central Radio Club, P O Box 1395, Bucuresti 5, Romania
ET3	Telecommunications Amateur Radio Club, P O Box 1047, Addis Ababa, Ethiopia, Africa	PT	PT QSL Bureau, Box 07-911, 70000 Brasilia, DF, Brazil	YS	Oscar R Orellana, YS10, P O Box 329, San Salvador, El Salvador, Central America
F1, FB8, FL8, FM7, FP8, FY7	REF QSL Service, Box 70, 75560 Paris Cedex 12, France, Europe	PY	LABRE, Box 2353, ZC-00, 20000 Rio de Janeiro, GB, Brazil, S.A.	YU	SRJ, P O Box 48, Belgrade, Yugoslavia, Europe
FG7	Radio Club Guadeloupe, P O Box 387, Pointe-A-Pitre, Guadeloupe, West Indies	PZ	VRAS, QSL Manager, P O Box 566, Paramaribo, Surinam, S.A.	YV	RCV, Radio Club Venezolano, P O Box 2285, Caracas, Venezuela, South America
FH8	QSL Manager, 588BC, P O Box 587, Tananarive, Madagascar, Africa	SK-SL-SM	SSA, 12207 Enskede 7, Sweden	ZB2	Or ARV QSL Bureau, Box 3636, Caracas, DF, Venezuela
FK8	QSL Bureau, P O Box 637, Noumea, New Caledonia	SP	PZK QSL Bureau, P O Box 320, Warsaw 1, Poland, Europe	ZB2	Via RAF Amateur Radio Club, Royal Air Force, Gibraltar, Europe
F08	Radio Club Oceanien, P O Box 374, Papeete, Tahiti	SU	QSL Bureau, P O Box 840, Cairo, Egypt, Africa	ZC4	Cyprus Amateur Radio Society, P O Box 216, Famagusta, Cyprus, or via G2MI
G	RSGB, Radio Society of Great Britain, c/o Arthur Milne, G2MI, 29 Kechill Gdns, Hayes, Bromley, Kent, England BR2 7NA	SV	Mediterranean SV QSL Bureau, P O Box 564, Athens, Greece	ZD7	Via P O Jamestown, St. Helena, Africa
GC-GD	RSGB, Gloucestershire GL15 5JE, England	SV0	Cards may also be sent via SV QSL Bureau, NARU, P O Box 1442, Athens 20, Greece	ZD8	Ascension Amateur Radio League, ZD8AR, P O Box 4187, Patrick AFB, Florida, USA
GI	R R Parsons, G13HXV, 45 Erinvale Av, Finaghy, Belfast 10, Northern Ireland, Europe	TA-TC	QSL Bureau, c/o SV0WY, APO New York 09223, USA	ZD9	RSGB, c/o Arthur Milne, G2MI, 29 Kechill Gdns, Hayes, Bromley, Kent, England
GM-GW	RSGB	TF	Turkey Radyo Amatörleri Cemiyeti, P O Box 699, Karakoy, Istanbul, Turkey, Asia	ZE	RSR QSL Manager, P O Box 2377, Salisbury, Rhodesia
HA-HG	HSRL, P O Box 214, Budapest 5, Hungary	TF	IRA, Isleuskir Radio Amatorar, P O Box 1058, Reykjavik, Iceland, Europe	ZF1	Cards may be sent direct
HB, HB0	USKA, HB9NL, Sonnenrain 188, CH 6233 Bueron, LU, Switzerland, Europe	TG	For American amateurs, Kellavik Amateur Radio Organization, Box 44, FPO New York 09571, USA	ZK1	QSL Bureau, Radio Station Rarotonga, Rarotonga, Cook Is.
HC	Guayaquil Radio Club, P O Box 5757, Guayaquil, Ecuador	TI	CRAG, P O Box 115, Guatemala City, Guatemala, C.A.	ZL	NZART, P O Box 489, Wellington, New Zealand
HC1	Asociacion Radio Ecuatoriana, P O Box 289, Quito, Ecuador, South America	TN8	Radio Club of Costa Rica, P O Box 2412, San Jose, Costa Rica, Central America	ZP	Radio Club Paraguayo, Casilla de Correo 512, Asuncion, Paraguay, South America
HC5	Cuenca Radio Club, P O Box 1366, Cuenca, Ecuador	TU2	QSL Bureau, P O Box 2239, Brazzaville, Republic of Congo, Africa	ZS	For members only - SARL, P O Box 3037, Capetown, Cape Province, South Africa
HH	Radio Club of Haiti, P O Box 70B, Port-au-Prince, Haiti	U	ARAI, P O Box 20036, Abidjan, Ivory Coast, Africa	3A2	Pierre Anderhalt, 3A2CN, 41 Blvd, Jardin Exotique, Monaco - or Director Generale des Telecons, 16 Blvd de Suisse, Monte Carlo, Monaco, Europe
HI	Radio Club Dominicano, P O Box 1157, Santo Domingo, D.N., Dominican Republic, West Indies	VE1	Central Radio Club, P O Box 88, Moscow, Russia, Europe	3B7, 8, 9	Paul Caboche, 3B8AD, P O Box 467, Port Louis, Mauritius, Africa
HK	LCRA, Liga Colombiana de Radio Aficionados, P O Box 584, Bogota, Colombia, South America	VE2	L J Fader, VE1FQ, P O Box 663, Halifax, Nova Scotia, Canada	457	Radio Society of Sri Lanka (Ceylon), QSL Manager, Box 907, Colombo, Sri Lanka (Ceylon), Asia
HL9	All HL9 stations - address with call letters and name, c/o 8th U S Army Signal Officer, AC of SCE, APO San Francisco 96301	VE3	A G Daemen, VE2IJ, 2960 Douglas Av, Montreal 301, Quebec, Canada	4W1-4W3	Cards for HB9 calls in Yemen, via USKA, HB9NL, Sonnenrain 188, 6233 Bueron, LU, Switzerland
HM	KARL, Central Box 162, Seoul 100-00, Korea, Asia	VE4	Russ H Buckley, VE3UW, 20 Almont Road, Downsview, Ontario, Canada	4X4	Shalom Bacalu, IARC QSL Bureau Manager, Box 65, Herzlia, Israel
HP	Radio Club de Panama, Box 10745, Panama 4, Rep. of Panama, C.A.	VE5	D E McVittie, VE4OX, 647 Academy Road, Winnipeg 9, Manitoba, Canada	5A	QSL Bureau, Box 372, Tripoli, Libya, North Africa
HP3	Esteban D Mackay HP3ML, Box 587, David, Chiriqui, Rep. of Panama	VE6	VE5JL, A Lloyd Jones, 2328 Grant Rd, Regina, Saskatchewan, Canada	5N2	Nigerian Amateur Radio Society, P O Box 2873, Lagos, Nigeria, Africa
HR1-HR4	Radio Club Tegucigalpa, Box 149-C, Tegucigalpa, DC, Honduras	VE7	D C Davidson, VE6TKW, 1108 Trafford Dr NW, Calgary 47, Alberta, Canada	5R8	QSL Bureau, P O Box 587, Tananarive, Madagascar, Africa
HR2	QSL Bureau, Radio Club de Honduras, P O Box 273, San Pedro Sula, Cortes, Honduras	VE8	Henry R Hough, VE7HR, 1291 McKenzie Av, Victoria, British Columbia, Canada	5V	Via P O Box 33, Atakpame, Togo, West Africa
HR3-HR6	HR3FJL, Av 14 De Julio, 3 Calle, La Ceiba, Atlantida, Honduras	VE9	Yellowknife Centennial ARC, Box 954, Yellowknife, NWT, Canada	5W1	Western Samoa RC, QSL Bureau - Secretary, Box 1069, Apia, Western Samoa
HR5	HR5NLC, Santa Rosa de Copan, Copan, Honduras	VK1	Yellowknife, NWT, Canada	5X5	The Uganda Amateur Radio Club, Uganda, East Africa
HS	RAST QSL Bureau, Box 2008, c/o GPO, Bangkok, Thailand, Asia	VK2	Canberra Radio Society, VK1ACA, c/o QSL Officer, Box 1173, Canberra City 2601, ACT, Australia	5Z4	RSEA QSL Bureau, Box 45681, Nairobi, Kenya, Africa
HV	Domenico Petti, HV1CN, Vatican City, Europe	VK3	WIA Hunter Branch, QSL Officer, Box 134, Charlestown 2290, NSW, Australia	60	Via P O Box 397, Mogadiscio, Somali Republic, Africa
HZ	Via HZ3TYQ, Victor L Crawford, P O Box 1721, Aramo, Dhahran, Saudi Arabia, Asia	VK4	QSL Officer, Box 638, GPO, Brisbane 4001, Queensland, Australia	6W8	REF, or ARAS, P O Box 971, Dakar, Senegal, Africa
I	ARI, V Scarlatti 31, 20124 Milano, Italy	VK5	QSL Bureau, c/o George Luxon, VK5RX, 203 Belair Rd, Torrens Park, South Australia 5062	6Y5	Jamaica Amateur Radio Assn, Jamaica Red Cross, 76 Arnold St, Kingston 5, Jamaica, West Indies
JA, JR6	JARL, Box 377, Tokyo, Japan, Asia	VK6	QSL Bureau, c/o J Rumble, VK6RU, P O Box F319, GPO Perth, West Australia 6001	7G1	Central Radio Club, Box 69, Praha 1, Czechoslovakia
JT1	Radio Club JT1KAA, P O Box 639, Ulan Bator, Mongolia	VK7	QSL Bureau, Box 371D, GPO, Hobart 7001, Tasmania, Australia	7Q7	H Y Brumbwe, 7Q7AE, Box 24, Blantyre, Malawi
JW1, JX1	NRRL, Box 21, Refstad, Oslo 5, Norway, Europe	VK8-9-B-SW	QSL Bureau, c/o R Jones, 23 Landale St, unlisted calls only, Box Hill, Vic 3128, Australia	7X	ARA QSL Service, Box 2, Alger, Algeria, Africa
KA	FEARL(M), CMR Box 1414, APO San Francisco 96525	V01	Ernest Ash, V01AA, P O Box 6, St. Johns, Newfoundland, Canada	7Z	HZ3TYQ, Victor L Crawford, P O Box 1721, Aramo, Dhahran, Saudi Arabia
KA6	QSL Bureau, OARC, APO San Francisco 96331, USA	V02	Goose Bay ARC, P O Box 232, Goose Bay, Labrador, Canada	8P6	Radio Society of Barbados, P O Box 814E, Bridgetown, Barbados, Windward Is.
KC4AA	Office of Antarctic Programs, National Science Foundation, Washington, D.C. 20550, USA	VP2	Antigua - via Gerald Price, VP2AC, P O Box 114, St. Johns, Antigua, Leeward Is.	8QA	Radio Society of Ceylon, P O Box 907, Colombo, Ceylon, Asia
KC4US	c/o Commander, Antarctic Support Activities, FPO New York 09501	VP2	Dominica-ARC of Dominica, VP2DZ, c/o Postal Deliveries, GPO, Roseau, Dominica, Windward Is.	8R1	Cards may be sent direct
KG4	Base Amateur Radio Office, Box 12, FPO New York 09593	VP2	Grenada - Fred W Pressey, VP2GBL, P O Box 104, Grenada, Windward Is.	9G1	Cards for members only, Ghana Amateur Radio Society, P O Box 3773, Accra, Ghana, Africa
KG6	Mariana Islands, except Guam, send cards direct	VP2	St. Lucia - via Timothy A James, VP2LT, P O Box 322, Castries, St. Lucia, Windward Is.	9H1	Robert F Galea, 9H1E, Casa Galea, Railway Road, Birkirkara, Malta, Europe
KG6	Guam only, via P O Box 445, Agana, Guam, Mariana Is.	VP2	St. Vincent - via QSL Bureau, P O Box 142, St. Vincent, Windward Is.	9H4	Eric Rogers, 9H4G, Dar Ghall-Kwiet, Ghajn Melel St, Zebbug, Gozo, Malta, Europe
KH6	John H Oka, KH6DQ, P O Box 101, Alea, Oahu, Hawaii 96701	VP7	Bahamas Amateur Radio Society, P O Box 6004, Nassau, Bahamas Is.	9I-9J	Via Radio Society of Zambia, P O Box 332, Kitwe, Zambia, Africa
KJ6	DET 1-1957 Comm Group AFCS, KJ6BZ, APO San Francisco 96305	VP8	Falkland Is & South Georgia - direct or the CX QSL Bureau, P O Box 37, Montevideo, Uruguay, South America	9K2	Nasir H Khan, 9K2AN, Box 736, Kuwait, Asia
KL7	Mary Olendorff, KL7BJD, Star Rt C, Wasilla, Alaska 99687	VP9	All other VP8 bases via - R5GB, England	9M2	MARTS, Box 777, Kuala Lumpur, Malaysia, Asia
KM6	KM6BI, Box 43, FPO San Francisco 96614, USA	VQ1	The RSEA QSL Bureau, P O Box 2387, Dar-Es-Salaam, Tanzania, East Africa	9M6-9MB	Via N Yatheendran, 9VJ1JY, 363 Woodlands Rd, Singapore 23, Asia
KP4	Alicia G Rodriguez, KP4CL, P O Box 1061, San Juan, Puerto Rico	VR2	The QSL Bureau, P O Box 184, Suva, Fiji Islands	9Q5	UZAR, QSL Bureau, Box 1459, Kinshasa, Rep. of Zaire, Africa
KP4	Novice cards only - the NNQB District QSL Manager, KP4QA, Jorge Blanch, Box 2573, San Juan, Puerto Rico	V56	Hong Kong Amateur Radio Transmitting Society, P O Box 541, Hong Kong, Asia	9U5	M Andre Berckmans, P O Box 14, Bujumbura, Burundi, Africa
		VS9M	RGSB, 28 Little Russell St, London, WC1, England	9V1	SARTS, Box 2728, Republic of Singapore 1, Asia
		VU	Amateur Radio Society of India, P O Box 534, New Delhi 1, India, Asia	9X5	RAR QSL Bureau, P O Box 663, Kigali, Rep. of Rwanda
				9Y4	Trinidad and Tobago Amateur Radio Society, P O Box 1167, Port-of-Spain, Trinidad, South America

WORLD TIME CONVERSION CHART IN HOURS

Greenwich Meridian Time. London, Eng- land.	Central Europe. Ber- lin, Geneva, Stock- holm, Vienna.	Eastern Europe. Ath- ens, Cape Town, Cairo, Moscow	Arabia, Armenia, Ethiopia, Madagas- car.	Mauritius, Iran, Reunion Island.	Central Russia, Bom- bay, India.	Calcutta, Novosel- birsk Russia, Tibet.	Sumatra, Thailand, Laos.	Philippines, Perth, Australia	Central Australia. Tokyo, Japan.	Eastern Australia. Melbourne, Sydney.	New Caledonia.	International Date Line, New Zealand, Fiji Islands.	Norfolk, Alaska. Samoa Islands.	Hawaii. Midway Islands.	Eastern Alaska. Dawson	Pacific Standard Time. Los Angeles, Seattle, Juneau.	Mountain Standard Time. Calgary, Denver, Phoenix.	Central Standard Time. Chicago, Costa Rica.	Eastern Standard Time. Montreal, New York, Peru.	Atlantic Standard Time. Argentina, Nova Scotia.	Greenland. Rio de Janeiro, Brazil.	Azores.	Iceland. Canary Islands.
0000	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM
0100	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night
0200	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM
0300	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM
0400	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM
0500	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM
0600	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM
0700	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM
0800	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM
0900	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM
1000	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM
1100	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM
1200	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM
1300	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon
1400	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM
1500	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM
1600	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM
1700	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM
1800	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM
1900	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM
2000	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM
2100	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM
2200	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM
2300	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM

With this chart you can convert standard time in any time zone to GMT or tell what time it is in other parts of the world. To correctly use this chart visualize each horizontal line as a complete circle. From your time zone tracing horizontally to the right (Counter Clockwise) it will be tomorrow when you pass midnight and yesterday when you pass the international date line. To the left (Clockwise) it will be yesterday when you pass midnight and tomorrow when you pass the international date line. There is no change in date when you pass both midnight and the international date line going in one direction. For instance at 8 PM in New York Eastern Standard Time it is 2 AM tomorrow in Berlin, Germany and 11 AM tomorrow in Sydney, Australia. Always trace in the shortest direction from your time zone to find what time it is in any other zone.

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<input type="checkbox"/> Door or rig	<input type="checkbox"/> Walnut Grained <input type="checkbox"/> Jet Black	All letters same size Up to 18 characters per line on 4" Up to 20 characters per line on 7" & 8"	<input type="checkbox"/> 1"x4" <input type="checkbox"/> 1"x7" <input type="checkbox"/> 2"x8"	
<input type="checkbox"/> Exec. Desk Set	<input type="checkbox"/> Walnut Grained <input type="checkbox"/> Jet Black	All letters same size Up to 20 characters per line		<input type="checkbox"/> Gold <input type="checkbox"/> Silver
<input type="checkbox"/> Lapel Pin	<input type="checkbox"/> Jet Black <input type="checkbox"/> White <input type="checkbox"/> Red <input type="checkbox"/> Blue	All letters same size Up to 12 characters—one line only		

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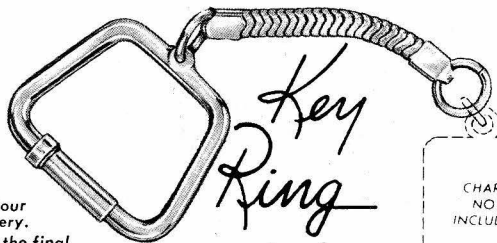
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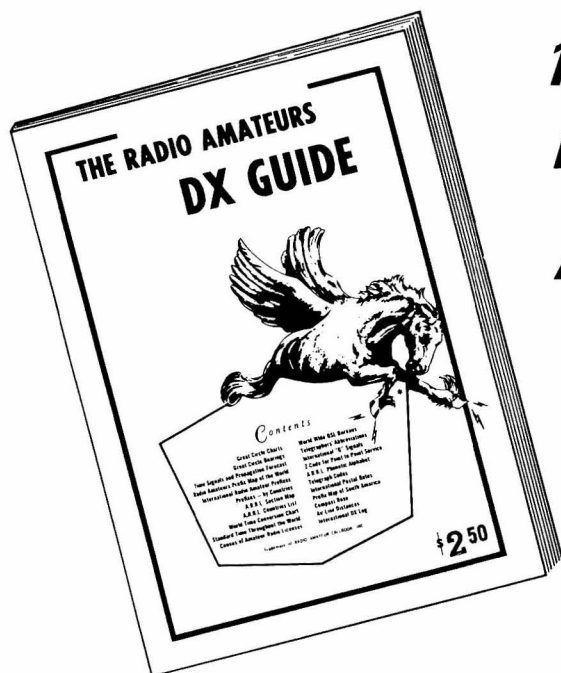
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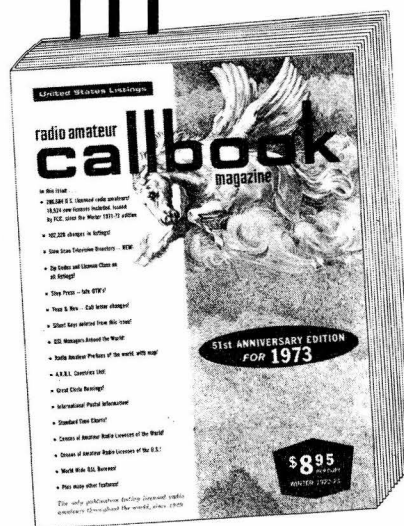
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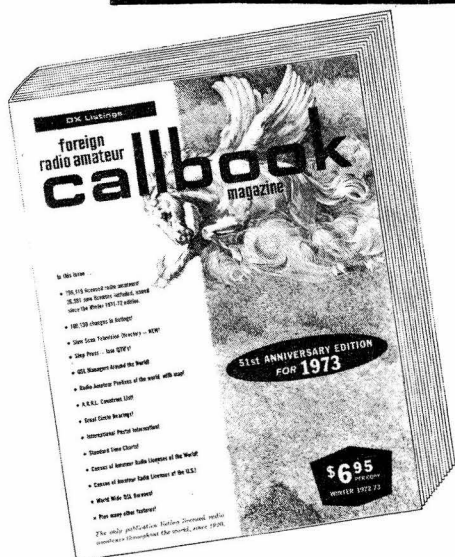
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